

COLLECTIONS STEWARDSHIP AT THE
SMITHSONIAN

HEARING
BEFORE THE
COMMITTEE ON HOUSE
ADMINISTRATION
HOUSE OF REPRESENTATIVES
ONE HUNDRED THIRTEENTH CONGRESS
FIRST SESSION

Held in Washington, DC, July 17, 2013

Printed for the use of the Committee on House Administration



Available on the Internet
www.fdsys.gov

U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 2013

82-544

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

COMMITTEE ON HOUSE ADMINISTRATION

CANDICE S. MILLER, Michigan, *Chairman*

GREGG HARPER, Mississippi

PHIL GINGREY, M.D., Georgia

AARON SCHOCK, Illinois

TODD ROKITA, Indiana

RICHARD B. NUGENT, Florida

ROBERT A. BRADY, Pennsylvania, *Ranking*

Minority Member

ZOE LOFGREN, California

JUAN VARGAS, California

PROFESSIONAL STAFF

KELLY CRAVEN, *Staff Director*

KYLE ANDERSON, *Minority Staff Director*

COLLECTIONS STEWARDSHIP AT THE SMITHSONIAN

WEDNESDAY, JULY 17, 2013

HOUSE OF REPRESENTATIVES,
COMMITTEE ON HOUSE ADMINISTRATION,
Washington, DC.

The committee met, pursuant to call, at 10:28 a.m., in Room 1310, Longworth House Office Building, Hon. Candice S. Miller (chairman of the committee) presiding.

Present: Representatives Miller, Brady and Vargas.

Staff Present: Kelly Craven, Staff Director; Peter Schalestock, Deputy General Counsel; Yael Barash, Legislative Clerk; Salley Wood, Communications Director and Deputy Staff Director; Bob Sensenbrenner, Senior Counsel; Mary Sue Englund, Director of Administration; Kyle Anderson, Minority Staff Director; Matt Pinkus, Minority Senior Policy Analyst; Matt Defreitas, Minority Professional Staff; Khalil Abboud, Minority Elections Staff; Thomas Hicks, Minority Elections Counsel; Mike Harrison, Minority Professional Staff; Greg Abbott, Minority Professional Staff; and Eddie Flaherty, Minority Professional Staff.

The CHAIRMAN. I am going to call to order the Committee on House Administration's hearing regarding Collection Stewardship at the Smithsonian Institution. In the hearing record, first of all, for members, will remain open for 5 legislative days so members might submit any materials they wish to be included therein.

Today we are holding a hearing on collection stewardship at the Smithsonian. The Smithsonian's vast collection, with more than 130 million items, which I think is an extraordinary number, holds so many objects of great significance to our Nation's scientific efforts as well as priceless objects of immense historical and cultural value.

However, given the size and the scope and diversity of the collection, from insect specimens to artwork to live animals over at the zoo, it has proven to be a significant challenge to manage, and a challenge that I certainly commend the Smithsonian for taking on with such great vigor and determination and commitment.

The Smithsonian has not testified actually before this committee since 2009. And so we decided to invite the Smithsonian certainly to fulfill our duty of oversight, of the oversight committee. And I think it is not often that you find bipartisan, bicameral agreement in Washington these days, but the fact that everyone loves the Smithsonian is something that we can all agree on. It certainly is truly one of the treasures of our Nation's Capital, of our Nation, of the world, really. And I would hope that the Smithsonian takes

this hearing as an opportunity not only to answer important questions about the collections, stewardship, and the progress that they have made over recent years, which has been remarkable, I think, but also to spread the word about the good work that the Smithsonian Institution does each and every day.

Since its establishment in 1846, the Smithsonian has provided America with free access—free access—to a treasure trove of American history. And at its core, the Smithsonian’s mission, the increase and diffusion of knowledge, depends on its collections. Without its collections, the Smithsonian certainly cannot accomplish much of its scientific research nor can it help other agencies—the United States, international, accomplish theirs. Without its collection, the millions of tourists who visit Washington would not be able to see the famous ruby slippers, the Hope Diamond, or the original Star Spangled Banner. And, thankfully, since its safe return, they can also visit Rusty, the red panda, as well.

Collections are fundamental to the Smithsonian’s mission, and its strategic plan recognizes that as well as the responsibility, as they say, to preserve them for future generations. In 2005, the Smithsonian’s Office of Policy and Analysis recognized the Smithsonian had challenges in maintaining its collection. Its report, “Concern At the Core,” detailed how the Smithsonian had systematic weaknesses in its collections care practices, and the report detailed how the Smithsonian had fallen behind on its collections care and expressed concern about the Smithsonian’s ability to track and maintain its collection. Subsequent IG audits of the Smithsonian museums, such as the National Air and Space Museum, the National Museum of American History, and the National Museum of Natural History, from 2005 to 2011, further outlined issues related to preservation, to inventory record, to storage conditions and security of collections.

In recognizing these challenges, the Smithsonian, to its great credit, realigned efforts to improve collection care practices. In 2010, in its 2010 to 2015 strategic plan, the Smithsonian specifically recognized strengthening collections as one of the Smithsonian’s top priorities. In 2011, the Smithsonian appointed Mr. Scott—Dr. Scott Miller, who joins us today, the Deputy Undersecretary for Collections and Interdisciplinary Support. The Smithsonian then had a point person in addressing the care of its varying collections, which ranges, I say, from small insects mounted on boards to large historical and industrial and military equipment. The Smithsonian has also embarked on three different initiatives to improve collections care; an institution-wide collections condition assessment, allowing the Smithsonian to find out the state of its collection; increased digitization of its collections; and implementing collections space planning. And while these are the overreaching plan at the Smithsonian, each of the Smithsonian’s museums have also undertaken their own initiatives to improve collections care.

However, the work there is not done. In its “Top Management Challenges for 2012,” the Smithsonian Inspector General identified collections stewardship as one of the most pressing issues for the Smithsonian’s management. And as chairman of the Committee on House Admin, I certainly feel responsibility for ensuring that the

Smithsonian, a rare institution that everyone in Washington values, keeps its collections available for future generations. And that is really one of the purposes of our hearings today.

And I certainly want to thank the witnesses for attending today, and I will formally introduce you in just a moment.

But at this time, I would like to recognize my colleague, Mr. Brady, our ranking member, for his opening statement.

Mr. BRADY. Thank you, Madam Chairman.

Madam Chairman, thank you for holding this hearing. As always, I am happy to work with you on this issue, and I expect we will get into other important issues as well. And I would like unanimous consent to be able to submit my opening remarks for the record because they mirror yours, rather than be redundant. We do have a fondness for the Smithsonian. We do know that you do some extraordinary things. You are a wealth of information and artifacts and memorabilia, and the whole country uses it and uses it well. So, with that, I would just like to submit these for the record and look forward to hearing from our witnesses.

[The statement of Mr. Brady follows:]

Robert A. Brady

Opening statement— (7/15/13)

Madam Chairman, thank you for holding this hearing on oversight of collections management at the Smithsonian Institution. As always, I am happy to work with you on this issue and I expect we will get into other important issues as well.

Millions of visitors to Washington throughout the year make Smithsonian museums prime tourist attractions. This is one of the main reasons why I have been strongly committed to keeping these museums free of charge.

While the objects and items on display represent historical and cultural treasures, there are millions of objects that are stored at Smithsonian facilities and not shown regularly on exhibition. Significant effort and expense are required to maintain the Smithsonian's treasures for future generations. If objects are damaged or deteriorate, they may be very difficult, if not impossible, to restore and may be lost forever. It is a major ongoing effort just to keep track of what the Smithsonian actually has, where specific items are stored, what condition they are in, and the condition of the buildings that contain them.

In addition, sequestration currently poses a serious challenge for any agency receiving Federal funding such as the Smithsonian, which receives two-thirds of its funds from the Federal treasury. I am very interested to learn how they have coped with the current budget crisis. I have been strongly supportive of the Smithsonian's funding needs in the past, including during the period from 2007 to 2011 when I was chairman of this committee. But under sequestration we have faced the prospect of going backwards in addressing so many of our nation's needs. At the Smithsonian, the museums may still be open, but not every exhibit will be visible every day. There are fewer museum attendants. Desirable projects may be postponed. And it will only get worse next year. I hope we can do something to help.

I welcome our witnesses and look forward to hearing from the Secretary, the Inspector General and the Deputy Under Secretary about the range of issues we will touch on today. Thank you.

The CHAIRMAN. Very well.

Without objection, Mr. Brady's opening statement submitted for the record.

I would like to now introduce our witnesses. Before his appointment as the 12th Secretary of the Smithsonian in July 2008, Secretary Wayne Clough was President of the Georgia Institute of Technology for 14 years, received his bachelor's and master's degrees in civil engineering from Georgia Tech in 1964 and in 1965, and then received a doctorate in 1969 in civil engineering from the University of California, Berkeley.

Secretary Clough was a member of the faculty at Duke University, Stanford University, and Virginia Tech. And as secretary, he is responsible for operating the world's largest museum and research complex, with 19 museums, the National Zoo, and numerous research centers. He oversees an annual budget of \$1 billion, with about 6,000 employees and an equal number of volunteers. He spearheaded the development and successful execution of a comprehensive strategic plan for the Smithsonian and has overseen the opening of major permanent exhibitions, including the Star Spangled Banner at the National Museum of American History, the Hall of Human Origins at the National Museum of Natural History, the new wing at the National Air and Space Museum's Udvar-Hazy Center, as well as the Asia Trails at the National Zoo.

Our next witness would be Dr. Scott Miller, who is the Deputy for Under Secretary of Collections and Interdisciplinary Support, responsible for central planning and development of the Smithsonian's vast collections of 137 million objects. Dr. Miller received a bachelor's degree from the University of California and a doctorate degree in biology from Harvard. He previously served as Deputy Under Secretary for Science, helping to oversee the Smithsonian's science museums and research facilities and as well was an Associate Director for Science at the National Zoo from 2004 to 2006.

And before coming to the Smithsonian in 2000, Dr. Miller designed and implemented an International Biodiversity and Conservation Program for the International Center of Insect Physiology and Ecology in Kenya.

Scott Dahl is the Inspector General for the Smithsonian Institution. He graduated in 1988 from the University of Texas Law School, worked at the Washington law firm of Arnold & Porter from 1989 to 1992. He previously served as Deputy IG at the U.S. Department of Commerce, Deputy IG for the Office of Director of National Intelligence, and senior counsel for the IG at the Department of Justice. And for the past 20 years, Mr. Dahl has been an adjunct professor at Georgetown University Law Center, teaching classes on professional responsibility and public corruption. The Office of the IG in the Smithsonian Institution reports directly to the Board of Regents and Congress as well. He was appointed by the Board of Regents. His office conducts audits and investigations related to Smithsonian programs and operations, promotes efficiency and effectiveness within the institution, prevents and detects cases of fraud, waste, and abuse, and makes recommendations regarding existing policy and regulations at the Smithsonian as well. And, of course, keeps Congress informed of his audits and investigations.

STATEMENTS OF SECRETARY G. WAYNE CLOUGH, PH.D., SECRETARY, SMITHSONIAN INSTITUTION; SCOTT MILLER, PH.D., DEPUTY UNDER SECRETARY FOR COLLECTIONS AND INTERDISCIPLINARY SUPPORT, SMITHSONIAN INSTITUTION; SCOTT S. DAHL, INSPECTOR GENERAL, SMITHSONIAN INSTITUTION

The CHAIRMAN. So I certainly want to thank all of the witnesses for being here. We had heard that last year alone, there were over 30 million visitors to the Smithsonian. Again, just an incredible, sort of a difficult number to even get your mind around. But it is a wonderful, wonderful, as I say, national treasure. And we look forward to your testimony today. And I would—the chair now recognizes Secretary Clough.

STATEMENT OF SECRETARY G. WAYNE CLOUGH, PH.D.

Mr. CLOUGH. Thank you, Madam Chair, and members of the committee for this opportunity to testify. The Smithsonian appreciates the support of the administration, Congress, and the American People, especially regarding collections stewardship.

Our collections reflect our broad mission, and include objects from history, art, culture, and science. They represent our collective memory of who we are as a people as well as our knowledge of the natural world and our universe. We take our role as stewards of the Nation's collection seriously, and I am here today to assure the American people that their collections are safe.

We do have challenges that are complicated by the size and complexity of our collection, the scope of the work needed for some of our older facilities that house collections, and some uncertainties about the Federal budget. We are stewards, as you mentioned, of 137 million objects and treasures, including 2,000 live animals; 127 million of the collections are indeed scientific specimens. In addition, there are more than 163,000 cubic feet of archives, including paper records, images, audio-visual and digital media, and 1.8 million library volumes, including rare books. We have a giant squid, the desk upon which Jefferson wrote the Declaration of Independence, Harriet Tubman's shawl, the jacket of labor leader Cesar Chavez, the Congressional Gold Medals awarded to the Japanese-American Veterans of World War II, the Wright flyer, Amelia Earhart's plane, and the Space Shuttle *Discovery*. We use them all to inspire visitors, spark discovery, and create new knowledge.

And guided by our new strategic plan that you referred to, we are focusing on our investments, measuring everything we do and striving to continuously improve. And this applies to both collections as well as our operations. There are great opportunities ahead. But as I recently told Congress, sequestration will affect the funding for the basics, such as maintenance and collection care, and funding for capital that is needed to address issues with older facilities.

Our 2010 strategic plan called for us to renew our focus on collections care, and this was reinforced by the inspector general's report in 2011. Three years ago, I elevated the responsibility for collections by creating a new position, deputy under secretary for collections and interdisciplinary support, that provides an integrated view for the institution. We appointed the highly respected sci-

entist with long experience in the field, Dr. Scott Miller, who is here today. He will discuss in detail what we consider our three pillars of our policy; pan-institutional collections assessment and planning, focus on digitization to improve collections preservation, management, information content, and lengthening their lifespans and collection space planning.

Let me offer a few highlights. Our cumulative investment in collections from fiscal years 2006 to 2012 includes \$462 million for collections management and \$390 million in major facilities capital projects directly affecting collections care. We created new state of the art collections care facilities as follows: We opened a new collection center at the Hazy Center of the National Air and Space Museum at Dulles. We added a new collection support center in Landover, Maryland. We built Pod 5 at the Museum Support Center, also in Maryland, for scientific collections, and we renovated Pod 3 at that same facility for three art museums, natural history collections, and cryo, our frozen collection. We renovated an offsite storage facility for our New York-based Cooper-Hewitt National Design Museum, and we added new greenhouses for our horticultural collections. We have supported research into best practices at our Museum Conservation Institute, which is located in Suitland, Maryland, and recently hosted the National Summit on Sustainable Preservation Environment Strategies.

To reduce duplications over the past decade, we have deaccessioned numerous items, including stamps, aircraft, and scientific specimens. We also work collaboratively with four Federal agencies that base 100 people in our natural history collections to fulfill their agency missions. And, through our Museum of Natural History, we provide technical support for the Federal Aviation Administration and the Department of Defense on aircraft bird strikes using our collections.

It is my honor to lead a dedicated staff of 6,400 employees plus 6,200 volunteers, all passionate about the Smithsonian and serving the American people. With the help of our Board of Regents, which includes six members of Congress, the chief justice, and the vice president, we are seeking to create a more responsive and relevant Smithsonian. And as noted, last year, we opened 100 exhibitions and hosted more than 30 million visitors, the largest number in a decade. We are expanding our reach through digital access, with more than 100 million unique visitors to our Web sites and more than 2,000 lesson plans that meet State standards which are delivered to all 50 States.

A scholar in American history once said the Smithsonian is in the "forever business," meaning our collections have to be preserved for all future generations. Recently, we created a new state-of-the-art home for the grand Star Spangled Banner at our American History Museum. As the flag was being moved into its new home, all the construction workers on the site stopped, stood, took off their hardhats, and, in many cases, with tears in their eyes, held their hands to their hearts as the flags passed. That is the power of inspiring objects. With the help of Congress and American people, we will preserve, protect, and present them for future generations to come. Thank you.

The CHAIRMAN. Thank you, Secretary.

[The statement of Mr. Clough follows:]

Smithsonian Institution

**Statement of Secretary G. Wayne Clough
Hearing on Collections Stewardship
Committee on House Administration
U.S. House of Representatives
July 17, 2013**

Thank you for the opportunity to testify on this important issue of Collections Stewardship.

In August 1846, the U.S. Congress passed legislation that founded the Smithsonian Institution as an establishment dedicated to the “increase and diffusion of knowledge.” The 1846 organic act established the Smithsonian as a repository for the US Government’s collections of “all objects of art and of foreign and curious research, and all objects of natural history, plants, and geological and mineralogical specimens...” [20 USC § 50.] This wording with regard to our function as the “national museum” was strengthened in 1879 [20 U.S.C. § 59].

The first objects donated to the Smithsonian were scientific apparatus. Soon art, books and other works were added. Starting in 1858, Congress provided the first annual appropriation to the Smithsonian for the care of the national collections. The second secretary of the Smithsonian, Spencer Fullerton Baird, sought a comprehensive collection of natural resources. That tradition continues with collections of the National Museum of Natural History forming the largest portion, 93 percent of our total collection.

Today the Smithsonian is the world’s largest museum and research complex with 19 museums and galleries, 20 libraries, the National Zoo and nine research centers. Smithsonian collections total 137 million objects and specimens, including 127.5 million scientific specimens and more than 2,000 live animals at the National Zoo, over 8.7 million historical artifacts, and more than 340,000 works of art as well as 1.8 million library volumes and 164,000 cubic feet of archival material.

We are the guardians of artifacts that tell powerful stories of who we are as Americans: Morse’s telegraph; Edison’s light bulb; the Salk vaccine; the 1865 telescope designed by Maria Mitchell, America’s first woman astronomer who discovered a comet; the Wright Flyer; Amelia Earhart’s plane; Louis Armstrong’s trumpet; the jacket of labor leader Cesar Chavez; the Lansdowne portrait of George Washington; the Congressional Gold Medal awarded to Japanese American World War II veterans; the Hopi ceramic pot carried into space by Chickasaw astronaut John Herrington, the first Native American to orbit the Earth; the camera John Glenn purchased at a drug store and used on his historic voyage into space; Asian, African and American art; the Apollo 11 Command Module, *Columbia*; and the space shuttle *Discovery*. As well as, of course, James Smithson’s handwritten draft Will and Testament preserved by the Smithsonian Institution Archives.

Our collections serve multiple purposes, beginning with their role in the nearly 100 exhibitions that we mount in our museums and galleries, as well as our traveling exhibitions that tour the

county. We have an extensive loan program with our 179 affiliate museums across the country. In addition, our collections offer a vast and varied source of knowledge for the thousands of scientists, scholars, and enthusiasts who come in person, and increasingly via digital access, to research and learn from them. They also form the basis for the thousands of educational resources tied to state standards that we make available for free to students and teachers in all 50 states. They spark learning, discovery and an ongoing dialogue amongst learners of all ages. That is why we continue to work to protect them and digitize them to make them more accessible. The federal role is crucial and irreplaceable in this effort, because philanthropic support is difficult to attract in this area, and we greatly appreciate the continued support of the administration and the Congress.

That support has enabled us to invest \$462 million on collections management and \$390 million on major Facilities Capital Projects affecting collections care since fiscal year 2006. We have created a plan to prioritize our future actions. But in this sequester budget environment, and given the unique nature of our collections, we have concerns going forward.

Since I arrived at the Smithsonian in 2008, I have been committed to preparing this remarkable and venerable Institution for a vibrant role in the 21st century. To this end, with the support and help of our Board of Regents, we have taken steps over the last few years to make the Smithsonian more entrepreneurial, self-reliant, responsive and relevant.

In 2010, the Smithsonian began implementing its new strategic plan, one developed with a new, inclusive approach, the first of its kind in our 167-year history. It calls for us to develop a new cross-disciplinary approach to the way we do our work and to focus our efforts on four grand challenges: Unlocking the Mysteries of the Universe; Understanding and Sustaining a Biodiverse Planet; Valuing World Cultures; and Understanding the American Experience. The plan includes a major element on strengthening collections, and calls for a greater use of technology to increase efficiency, to allow us to deliver educational materials across the nation, and to provide greater public access to our collections, scientists and scholars. There is an emphasis on collaboration and partnerships to extend our knowledge and talents. The strategic plan also emphasizes cultivation of private funds so we can support talented young people on internships, fellowships and post-doctoral positions. Finally, the strategic plan guides us in excellence at all levels of our mission-enabling units. It has served us well, both in clarifying our focus and bringing coherence to our work.

Today, we see results. Visitation to our museums and galleries is up by five million, exceeding 30 million for the first time in a decade. This is not an accident, but the result of hard work by dedicated professionals to mount nearly 100 new educational exhibitions a year. If you can't come to the nation's capital, we are coming to you through loans of iconic national treasures to our network of 179 affiliate museums in 42 states, and our Smithsonian Institution Traveling Exhibition Service, which reaches nearly five million Americans every year in communities around the nation. More than 20 million people subscribe to the Smithsonian Channel, which this year won both Emmy and Peabody Awards. And nearly seven million people read Smithsonian Magazine.

Digital technology is allowing the Smithsonian to reach new, diverse audiences and more people than ever before. More than 270 Smithsonian websites last year attracted more than 100 million unique visitors; and more than three million social media followers; and more than 40 mobile apps allow us to engage the public as never before. We are committed to open access to our collections. Today more than eight million records and one million images are available to the public through our main website's Collections Search Center. Well over 60 percent of the collections of our art museums are online.

Our collections are used by the young and expert alike. For example, the National Museum of Natural History collections are used to support invasive species identification, and National Zoo collections are used to support research on wildlife health and epizootic disease. The Natural History building on the Mall permanently hosts personnel from four federal agencies, especially the U.S. Department of Agriculture (USDA), who provide identification and research in support of invasive species. The next invasive pest can be anything from anywhere in the world, so a comprehensive global collection and library are vital to rapid identification, thus empowering informed and effective management. The USDA shares the costs of development and curation of the Natural History insect collection, and both our staff use the robust collection to identify something over 15,000 lots of insects annually in support of border protection and agriculture research. To cite one example, the Emerald Ash Borer, a green beetle, is one of the most damaging invasive species in the United States (and Canada). Based at our National Museum of Natural History and using our collections, a USDA biocontrol program is working on the taxonomy of parasitic wasps that might serve as biocontrol agents. The Emerald Ash Borer (EAB) Program works to prevent the spread of EAB and mitigate the damage it causes to America's ash trees. The native range of the emerald ash borer includes China, Mongolia, North Korea, South Korea, Japan, Taiwan, and the Russian Far East. The EAB was unknown in North America until its discovery in southeast Michigan in 2002. Today, EAB infestations have been detected in 20 states; Connecticut, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and Wisconsin.

Four federal agencies (U.S. Geological Survey, Department of Defense, U.S. Department of Agriculture and Department of Interior) spend roughly \$6 million annually to base 100 people in our natural history collections to fulfill their agency missions. In addition, the Federal Aviation Administration and Department of Defense work closely with our National Museum of Natural History to carry out bird-strike identifications using collections based studies.

New technologies in genomics and biochemistry allow new layers of information to be extracted from old museum specimens, but they also raise new challenges regarding storage that we are addressing through our cryo-preservation initiative.

We have longstanding partnerships with a myriad of federal agencies, including the National Aeronautics and Space Administration, the National Oceanic and Atmospheric Administration, the National Institutes of Health, the U.S. Patent and Trademark Office, the Department of Defense, the Department of Education, the Department of the Interior, the State Department, the National Park Service, the National Archives, the Library of Congress, and the Office of Science

and Technology Policy. These partnerships are economically efficient and very productive. That's why continued federal support for our collections is so important.

We have collaborations with dozens of universities across the country. In October 2012, we unveiled a state-of-the-art new academic facility with our partner George Mason University. The Smithsonian-Mason School of Conservation located at the National Zoo's Smithsonian Conservation Biology Institute in Front Royal, Virginia began in a small conference facility that could accommodate 15 students. Today's new capacity is six times greater. The facility includes teaching laboratories, classrooms, offices, and dining facility for undergraduate, graduate and professional students. Architecturally, the facilities themselves embody the spirit of conservation that drives this program that highlights the importance of animals in our collections. We have ongoing collaborations with the University of Maryland regarding collections at our National Museum of Natural History and our National Zoo, and with George Washington University regarding museum studies and anthropology.

These kinds of partnerships are key to advancing our goals and mission. In the last several years, we have more than doubled the level of annual private funds raised by the Smithsonian, supporting key initiatives outlined in our strategic plan. The private funds complement and extend the impact of our federal funding.

Nowhere is the importance of the public/private partnership more evident than in the ongoing work to build the National Museum of African American History and Culture (NMAAHC). When Congress and the Administration asked the Smithsonian to take on the responsibility for this \$500 million construction project, it was stipulated that the federal government would provide half of the cost while the Smithsonian would raise the other half. This effort is ongoing, and while significant progress has been made, more work needs to be done to complete the task. As construction continues, so does the process of collecting items to tell this story vital to all Americans. Among other items, we have: Harriet Tubman's Shawl; a slave cabin from Edisto Island, South Carolina; Chuck Berry's red Cadillac; George Clinton's Mothership; an African American soldier's revolutionary war powder horn; and the *Spirit of Tuskegee* airplane, used to train Tuskegee Airmen during World War II.

While construction moves ahead on NMAAHC, there is a continued requirement to address the needs of our older and most visited museums—the National Museum of Natural History, the National Museum of American History and the National Air and Space Museum in particular.

A series of Smithsonian Inspector General's (IG) audit reports focused on these three museums to assess the state of collections and their security. Those reports have been useful to us as we address specific issues and in clarifying strategies for strengthening collections. A combined 64 audit recommendations have been satisfied at the National Museum of Natural History, the National Air and Space Museum, the Cooper-Hewitt, National Design Museum, and the National Museum of American History. Only three audit recommendations remain open as of the close of the second quarter this fiscal year, and are on target for closure by end of the calendar year.

The volume, characteristics, complexity, and age of Smithsonian collections, as well as the variety of discipline-specific standards that apply to their care, make their management, storage, and digitization as complex as the collections themselves.

Our preservation environmental strategies must be guided by proven data-driven standards based on scientific research and first-hand experience, and collaborative decision-making between architects, collections managers, building engineers, and conservators.

We have made significant progress in improving collections care through major facilities capital revitalization and construction projects, including completion of:

- Completion of the Udvar-Hazy facility
- Construction of Pod 5 at the Museum Support Center (MSC) for alcohol collections
- Renovation of Pod 3 at MSC for three art museum collections, Natural History collections, and cryo-collections
- Lease and development of the Pennsy Drive Collections and Support Center
- Construction of an off-site storage facility in New Jersey for collections from the Cooper-Hewitt Museum.

Created in fiscal year 2010, the Smithsonian's Digitization Program Office is leading the effort to document and increase the quantity and quality of digital inventory records and digital images, advancing each of the four major goals of our Strategic Plan, as well as broadening access, revitalizing education, and strengthening collections. Objects to be digitized range from small botany collections at the Natural History Museum to very large collection projects like high resolution 3D images of aircraft at the National Air and Space Museum. Digitization supports collections care by strengthening inventory control through electronic record keeping, and by providing visual documentation of collection items. Digitization also increases access to our collections for those audiences unable to visit our museums and collections in person, and prolongs the life of a collection object by minimizing handling. Digitization extends access to collections items in storage. We are exploring creative and efficient ways to integrate digitization into the core functions of the Smithsonian. To anchor the direction of the central strategy, all Smithsonian collecting units have created unit digitization plans, detailing priorities and goals at a more granular level. Priorities include inventory control, compelling research interest, education, and preservation as the primary drivers of the digitization program.

Our priorities for digitization are guided by new pan-Institutional directives approved by the Under Secretaries that highlight inventory control, compelling research interest, education, and preservation as the primary drivers. Additionally, the investment of the Digitization Program Office funding itself is guided by a detailed set of criteria aimed at leveraging existing pan-Institutional infrastructure investments, increasing unit collaboration and expertise sharing, increasing digitization throughput and the creation of high-resolution content, as well as encouraging industry partnerships. The impact of these digitization priorities, as well as the progress on digitization, is being measured side-by-side with metrics about the physical condition of collections from the National Collections Program and will allow the Smithsonian to tell one comprehensive story across physical and digital stewardship of collections.

Three years ago, I created a new position and appointed my colleague, Dr. Scott Miller as Deputy Under Secretary for Collections and Interdisciplinary Support. This new position was created to give a higher visibility to collections and collections care and to provide a central point for sharing best practices and keep comprehensive data on the condition of collections and collections facilities. He is here with me today to relate the specific details about some of our important pan-Institutional initiatives.

Scott has made significant strides in developing, for the first time in the Institution's history, rich datasets that combine condition and significance of the collections themselves, with their stewardship context and user accessibility. We are focused on three pan-Institutional initiatives that inform our collections stewardship efforts:

- Institution-wide collections condition assessment
- Focus on digitization
- Collections space planning initiative (surveyed more than two million square feet of Smithsonian space)

I am intrigued by what Scott's team has been able to accomplish in a relatively brief amount of time. But I know that even with many of these initiatives still in progress, early indications show us the need for more resources and more investment to address deficiencies.

Our long-range plan is based on a public-private partnership approach, which has been successful to date, but this concept faces increased challenges as federal budgets decline. Should they remain in effect, the sequestration reductions will inevitably reduce the funding we can commit to collections care and stewardship responsibilities. Over the past five years, we have worked hard to build our capacity in this important mission area and it will be highly problematic if the progress we have made is eroded. We have already lost staff in this area.

I trust we can work together to continue the effective management and development of this great Institution. I have such a deep appreciation for the work my colleagues perform each day at the Smithsonian. Each day that I come to work at the Smithsonian Castle on the National Mall, I learn something new, meet a remarkable curator or scientist, and feel proud of the invaluable service we provide the American public.

One of our curators at American History once said that the Smithsonian is in the "forever business." Forever is a long time, and that is one of the challenges we face with our collections. The Star-Spangled Banner, one of our nation's greatest treasures, illustrates the issues.

More than a century ago, "best practices" suggested that the flag be reinforced with a linen backing—meticulously sewn on with 1.7 million stitches. A century later, thanks to substantial philanthropic support, we launched a 21st century conservation effort to preserve the flag for future generations of visitors. And we painstakingly removed every one of the 1.7 million stitches—by hand. Today, it is in its new state-of-the art home at our American History museum.

A few years ago, as the Star-Spangled Banner was being moved into its new home, all the construction workers on site stopped. They stood, took off their hard hats, and held their hands to

their hearts until the flag passed. That is the power of inspiring objects. You find them at the Smithsonian. And, with the help of Congress and the American people, we will preserve, protect and present them for generations to come.

###

The CHAIRMAN. That is a very great story there about the Star Spangled Banner. That speaks to what you are about there, certainly.

The chair now recognizes Dr. Miller for his testimony.

And we have a 5-minute light on. But if you need to go over a little bit, we are—just take your time and go through it. Thank you.

STATEMENT OF SCOTT MILLER, PH.D.

Mr. MILLER. Thank you for this opportunity to testify.

As Secretary Clough described, I have oversight responsibilities for the collections at the Smithsonian, and it is a great privilege to do so. But as an entomologist with 30 years of experience doing collections-based research, I also have a very personal appreciation for the value of the collections and how they can be used. I, too, want to assure the American people that their treasures are safe.

Our holdings are a global resource accessed by millions of visitors and researchers each year in subjects from aeronautics to zoology. With Federal support, we are working diligently to ensure that our collections in art, science, history, and culture are there for generations to come to educate, to inspire, and to enlighten.

Collection stewardship is among the Smithsonian's highest priorities and, in some cases, our greatest challenge. The volume, characteristics, and age of Smithsonian collections as—well as the variety of standards that apply to their care—make their management, preservation, and digitization as complex as the collections themselves. Yet we have been making great progress in many areas.

Specifically, we have satisfied all but a few of the inspector general recommendations, and those will be addressed by the end of the year. As the secretary noted, we have focused on three initiatives for a holistic view of the collection. Specifically, those are the assessment of collections care conditions, strategic focus on the digital Smithsonian, and collection space planning. These three initiatives encompass the concerns noted in the IG reports, specifically, inventory control, security standards, and preservation. The creation of my office itself has raised the profile of collections issues within the Smithsonian and, in some cases, served as a catalyst for our recent progress.

Most people think of the Smithsonian as the iconic museums on the National Mall in front of the Capitol. We are a destination, but we are also so much more, with collections prominently at the heart of the Smithsonian. In fact, most of our scientific collections are acquired and maintained solely for the purpose of research. They enable experts to address significant challenges facing society, such as the spread of invasive species. Just one example is the emerald ash borer, a beetle currently ravaging ash trees from Maryland to Michigan.

In addition to our own experts, last year we had more than 45,000 research visitor days to the collections. But we also have some research visitors who simply stay and call the Smithsonian home. Four Federal agencies base 100 people in our natural history collections to fulfill their agency missions and to serve the American people. We work together in interagency partnership with them. In the last few years, we have begun serious industry-lead-

ing assessments of collections. We are using those data to drive pan-institutional prioritization of resources. In that process, we look at many factors, including the importance to the Smithsonian's mission and strategic plan, the urgency of preservation needs and the current or potential use for research, education, or exhibition. This big picture has capitalized on economies of scale and enabled comprehensive care improvements that benefit the greatest number of items in an efficient, practical, and cost-efficient manner.

We also have initiatives that involve collaboration across different collecting units for similar kinds of materials, such as improving the management and accessibility of frozen biological materials, developing and implementing best practices in the preservation of digital art and time-based media, and developing an interdisciplinary approach to emergency preparedness and response for the collections.

We are stewards of the Smithsonian collections but we affect collections globally. We set industry standards for collections care. We also continuously evaluate those standards for their utility and viability, often revising standards over time as our scientific research on collections conservation provides new information and guidance. We share that knowledge in multiple ways. For example, I have the privilege of being the co-chair of the Interagency Working Group on Scientific Collections, which is enhancing collections policy across Federal collections in response to the America COMPETES Act.

In some cases, final assessment data from those initiatives that I mentioned are still pending, but we do know that we will need more resources to address insufficiencies. We know that targeted funding helps us to remediate conditions and deficiencies that have existed for many years, and we are grateful to Congress for that support, yet sequestration is an issue for us at the Smithsonian. We have incredible challenges to address at the same time that our budget is stretched thin, and this can adversely impact the recent progress that we have made.

We have shown what can be accomplished with targeted investment. We will continue to seek alternative funding models. But private donors often see collections-related activity as primarily a Federal responsibility. Thus, we continue to need the support and financial help of Congress to continue to preserve America's treasures.

Thank you.

The CHAIRMAN. Thank you very much, Dr. Miller.

[The statement of Mr. Miller follows:]

Smithsonian Institution

Statement of Deputy Under Secretary Scott Miller
Hearing on Collections Stewardship
Committee on House Administration
U.S. House of Representatives
July 17, 2013

It is challenging to visualize the size and diversity of Smithsonian collections—137 million objects and specimens, 1.8 million library volumes, and more than 164,000 cubic feet of archival material. These holdings are a global resource accessed by millions of visitors and researchers each year who wish to explore subjects from aeronautics to zoology. Among the vast collections are irreplaceable national icons, historical artifacts, and natural science material vital to the study of the world's scientific and cultural heritage, with a scope and breadth that no other institution in the world can match. Smithsonian collections are so vast that even with 19 museums and art galleries, libraries, the National Zoo and nine research facilities, only a fraction of our collections can be exhibited within the museums and galleries at any given time.

To most people, the Smithsonian conjures a place on the National Mall. We are a destination but we are also so much more. Most of our scientific collections are acquired and maintained solely for the purpose of research, enabling experts to address such significant challenges facing society as the effects of climate change, the spread of invasive species, and the loss of biological diversity and its impact on the global ecosystem. Last year we had more than 45,000 research visitor days to our collection holdings. No matter how collections are utilized, collections must be properly preserved and remain accessible for current and future generations to enjoy and study in order to increase our knowledge of the arts, history, culture and sciences.

Assembled over 167 years, Smithsonian collections are fundamental to carrying out the Institution's mission and strategic plan, serving as the intellectual base for scholarship, discovery, exhibition, and education. Collections stewardship is among the Smithsonian's highest priorities and in some cases, our greatest challenge. The volume, characteristics, complexity, and age of Smithsonian collections, as well as the variety of discipline-specific standards that apply to their care, make their management, preservation, and digitization as unprecedented, challenging, and complex as the collections themselves.

With targeted funding, the Smithsonian has made significant strides in improving the management, care, and accessibility of collections. The Smithsonian approaches collections pragmatically and strategically through assessments, long-term planning, and prioritization, measuring many factors, including: the greatest importance in supporting the Smithsonian's mission and strategic plan; the most urgent collections preservation needs; and the highest current or potential use for research, education, and exhibition. Fundamentally we are one Institution, but the management of Smithsonian collections

has been decentralized and delegated to our individual museums, art galleries, and collecting units. Since I took office in December 2010, my team has been engaged in this cross-disciplinary approach to collections-related challenges and opportunities. Engaging in holistic collections-level management has capitalized on economies of scale and enabled comprehensive care improvements that benefit the greatest number of items in an efficient, practical, and cost-effective manner.

The series of Smithsonian Inspector General's (IG) audit reports on the state of collections and their security illustrate that stewardship is not a single process, but a series of components that are interwoven, interdependent, and ongoing. The reports delineate the challenges facing the Smithsonian and most museums and galleries museums today, and will help guide strategies for tomorrow.

While we've just been informed of a new audit on the horizon, the IG's collections-related reports to date have focused on specific museums, most recently the National Museum of American History. Smithsonian response to these challenges however, has been best addressed through a coordinated, Institution-wide approach. The update and tour of our collections and facilities I provided last July to Committee staff touched on several important strategic initiatives still currently underway. These three efforts directly support the Smithsonian's Strategic Plan and will greatly improve collections care and accessibility, including:

- Implementation of an Institution-wide collections condition assessment to guide long-term plans for collections care, identifying areas where improvements are needed, establishing priorities, measuring progress, and providing a practical framework for the allocation of resources;
- Focus on digitization to guide electronic capture of collections and research holdings to document these collections in a format that saves and shares them in perpetuity. The plan includes central policy guidance including the exploration of Digital Smithsonian as a unifying concept, but also development of unit-based digitization and asset management plans and development of useful metrics to track and document progress in the digitization of our collections; and
- Implementation of collections space planning to survey the current condition of Smithsonian collections space and to develop a framework plan for addressing current and projected Smithsonian-wide collections space requirements, including future collections growth. Currently, our museum collections grow at an annual rate of 0.3% which includes new acquisitions and the refinement and deaccessioning of existing collections. The acquisition of collections is fundamental and critical to the vitality of the Smithsonian in order to preserve the evolution of human knowledge and document our cultural and scientific heritage for future generations.

In fiscal year 2010, the Smithsonian's National Collections Program, a central office under my direction, conducted an Institution-wide collections condition assessment. The

physical condition assessment allows us to identify areas of need, to establish priorities, and to track progress on improving the physical condition and accessibility of collections ultimately to ensure long-term preservation and availability for research and exhibition. As part of the assessment, Smithsonian collecting units grouped and evaluated their collections holdings by defined pragmatic subsets, based on their management and use, and characterizing the quality of collections storage equipment, objects housing materials, preservation, physical accessibility, and collections space.

In fiscal year 2012, collections significance was added to the collections assessment methodology. To appropriately capture the scope and diversity of our collections, from insects and meteorites to locomotives and aircraft, collections are assessed at a collections-level—such as military uniforms rather than a single object- or item-level, or one uniform. Based on the collections assessment results, we continue to target and improve substandard aspects of collections care by providing essential resources, by correcting specific deficiencies identified in the Smithsonian’s Inspector General audit recommendations, and by addressing the Institution’s highest priority collections management needs. Using targeted resources, we have made substantial improvements in preservation and accessibility of collections ranging from national icons to biomaterials in the most efficient and cost-effective manner possible.

Created in fiscal year 2010, the Smithsonian’s Digitization Program Office is leading the effort to document and increase the quantity and quality of digital inventory records and digital images, which advances each of the four major goals of our Strategic Plan, and is a basic requirement for broadening access, revitalizing education, and strengthening collections. Digitization supports collections care by strengthening inventory control through electronic record keeping, and by providing visual documentation of collection items. Digitization also increases access to our collections for those audiences unable to visit our museums and collections in person, and prolongs the life of a collection object by minimizing handling. And again, with less than one percent of Smithsonian collections on display at any given time, digitization extends that access to collections items in storage. We are exploring creative and efficient ways to integrate digitization into the core functions of the Smithsonian. To anchor the direction of the central strategy, all Smithsonian collecting units have created unit digitization plans, detailing priorities and goals at a more granular level.

An annual assessment tracks our progress to date, and will allow us to quantify the impact further investment will have. The unparalleled size of the Smithsonian collections is a unique challenge. We chart our own course as we move from paper-based inventory to electronic inventory control. We maintain paper-based records for 85% of our 137 million objects and specimens, and electronic records for just 15% percent. We are trying to move the dial but this volume is unprecedented, and the variety of sizes, shapes and relative fragility of our collections poses significant challenges. In fiscal year 2012, we added 170,000 standard electronic records for inventory control,

Ultimately, not every item requires a digital record. As I mentioned, many of our collections are acquired for the sole purpose of scientific study and many of these items can be described digitally by groupings. We see this method in Natural History collections most often. For example, fish specimens collected to characterize the population and variability that exists at one place in time are frequently stored in one jar. We track and manage the jar simply in one digital record. As we better understand and document the Smithsonian collections, we are able to prioritize a subset of objects and specimens for digitization.

Priorities include inventory control, compelling research interest, education, and preservation as the primary drivers of the digitization program. Overall, 12 million objects and specimens (or 9% of our collection) have been targeted. Currently, we have standard digital images that represent 12% of this priority collection and our current progress is almost 3% annually. But there is so much more to achieve and we are engaged in creative exploration of meeting these needs cost effectively. We commissioned a study by the Smithsonian's Office of Policy and Analysis that will provide cost-efficient operational models for digitizing collections systematically at scale. Establishing standard rapid digitization for common collections materials ensures maximum return on investment for digitization funding, and will improve the access of digital assets for scientific inquiry and public engagement.

In fiscal year 2010, the Smithsonian launched a space planning initiative to document, analyze, and plan for addressing the Smithsonian's current and future collections space needs in a pragmatic, strategic, and integrated manner. With these goals in mind, the Smithsonian established an interdisciplinary Collections Space Steering Committee, led by the National Collections Program and the Office of Planning and Project Management, a subset of our central Office of Facilities Engineering and Operations, to assess current collections space conditions and needs and to develop a framework plan with near, intermediate, and long-term recommendations for addressing current and projected pan-Institutional collections space requirements.

As part of this initiative, the Smithsonian completed a survey of existing collections space—representing more than 2.1 million square feet of space, or 17.5% of total Smithsonian building space. The survey provides a snapshot of current collections space conditions and characterizes the quality of collections space, storage equipment, accessibility, environmental conditions, security, and fire safety.

Preliminary data highlighted that some collections were at immediate risk of damage or loss. At the Garber Facility in Suitland, Maryland, for example, temporary buildings constructed in the 1950s and 1960s have long passed their useful lifespan, are structurally compromised or failing, and represent substandard conditions or have been rendered inadequate for housing collections. The heavy snowfall which collapsed Garber Building 21 in February 2010—which housed 2,200 objects from the National Air and Space Museum—fortunately caused little to no damage to the collections, but reinforced the

need to develop and implement short and long-term plans to replace substandard facilities and to improve collections space conditions across the Institution. As a result, a fiscal year 2012 Facilities Capital project currently underway begins to address the severe collections space deficiencies in Buildings 15, 16, and 18 at the Garber Facility, supporting the decontamination, stabilization and move of American History and Postal Museum collections currently stored in the buildings to a soon-to-be constructed temporary swing space. Completion of this remediation project and the continued move of Air and Space Museum collections to the Udvar-Hazy Center are the first steps in a phased redevelopment plan for the Garber Facility.

With the assistance of an architecture and engineering firm, our collections space planning efforts are nearing completion. The framework plan will provide an understanding of where and what our greatest collections space needs are, strategies for addressing them, and three prototype building designs on which to model future projects. These models create efficiencies through commonalities while still addressing unique needs, and include strategies for the decompression of collections to make them more physically accessible, accommodation for future collections growth, and the replacement of existing leased facilities through the strategic renovation of existing buildings. The plan outlines construction of Pod 6 at the Museum Support Center and new development of the Suitland and Dulles campuses. In the end, the plan creates a clear yet flexible roadmap to inform Smithsonian management decisions and to guide our budget requests and resource allocation for addressing the Institution's near and long-term collections space requirements.

Existing collections space that needs to be renovated will continue to be addressed through unit-level master planning and individual Facilities Capital projects. Master plans and updates currently underway or included in our Facilities Capital Five-Year Plan will address collections space needs at the Anacostia Museum, Hirshhorn Museum and Sculpture Garden, National Museum of African Art, Freer and Sackler Galleries, National Museum of American History, National Air and Space Museum, National Postal Museum, National Museum of Natural History, and the National Museum of the American Indian.

While we are stewards of Smithsonian collections, we affect collections globally. We set industry standards for collections care and continuously evaluate their utility and viability, often revising standards over time as our scientific research on collections conservation provides new information and guidance. For example, as part of our ongoing collections space planning efforts, we hosted a national summit in March on sustainable environmental best practices and strategies. As a leader in the museum profession, the Smithsonian is committed to furthering our understanding of the environment controls in collections storage and exhibition spaces and to fostering the required collaboration among critical stakeholders who share this responsibility for designing, establishing, and maintaining collections environments. Our leadership established temperature and humidity standards in use across the world. As citizens of

this planet we are all compelled to evaluate our energy impact. During the summit, stakeholders evaluated that standard for a less energy-intensive approach. A direct outcome of the summit is further refinement of our environmental climate needs for collections which will ultimately assist the Institution (and others) with future major energy savings in renovations and new construction of collections spaces. We will again set the standard for an industry. The Smithsonian will lead by example, preserving the collections entrusted in our care, being energy and cost efficient, and educating the public about the effects of global change and our options to adjust to such change. Together we ensure a sustainable strategy for the future of the world's cultural and scientific heritage and the global environment.

The Smithsonian also works with federal partners to examine the current state of Federal scientific collections and to make recommendations for their management and use. I have oversight responsibilities for collections at the Smithsonian, but I am also an entomologist with 30 years experience doing collections-based research. It is especially rewarding to serve as co-chair, along with the U.S. Department of Agriculture, of the Interagency Working Group on Scientific Collections.

We issued a report in 2009 as a first step in ensuring that our shared vital research infrastructure is preserved and strengthened for the benefit of both our country and the global scientific research enterprise. We continue a vital interagency collaboration to ensure a systematic approach to safeguarding scientific collections under the stewardship of the federal government. As recognized by the America COMPETES Act of 2010, the proper management, documentation, preservation, and accessibility of collections are critical to the nation's research and education infrastructure. The preservation and management of Federal scientific collections is recognized as part of the long-term infrastructure needs and responsibilities of Federal scientific agencies. The Smithsonian serves as a leader in the Federal community by the excellent progress we have made and the professional standards we establish in collections management.

To ensure all scientific, cultural and historical Smithsonian collections are preserved and remain accessible for current and future generations, the Institution must improve its collections space—with Congressional assistance—which ultimately strengthens Smithsonian collections stewardship. In addition, the Smithsonian is currently exploring alternative means of funding collections space through the use of public-private partnerships, and other vehicles that would allow the Institution to implement the recommendations of our collections space planning on a more expedited basis.

In addition to these three pan-Institutional programs, the Smithsonian is also engaged in a number of initiatives that involve collaboration among similar collections across the Smithsonian that are strengthening collections stewardship. First, the Smithsonian Cryo-Initiative is greatly improving the management, storage, and accessibility of frozen biomaterials held by the National Zoological Park, National Museum of Natural History, and the Smithsonian Tropical Research Institute. Smithsonian cryo-collections total

nearly 1 million samples of frozen tissue products, germ-plasma, embryos, DNA and animal and plant products from more than 18,500 species. By leveraging the shared expertise and resources dispersed across the Institution, this initiative supports an integrated and efficient approach to curation, management, and data sharing of these important biomaterials to ensure their accessibility for scientific research worldwide. Secondly, the Smithsonian—working closely with colleagues in the museum profession—is developing and implementing interdisciplinary best practices in the acquisition, care, exhibition, and long-term preservation of digital art and time-based media, a growing and fragile collection material. Lastly, we are in the process of developing an interdisciplinary, pan-Institutional support team to strengthen and improve Smithsonian emergency management, planning, preparedness and response for collections.

For the first time in the Institution’s history, these rich datasets combine condition and significance of the collections themselves, with their stewardship context and user accessibility. The Collections Condition Assessment and Collections Space Survey and Planning bring into to focus the current state of collections stewardship and quality of existing collections space, and how to prioritize improvements in both quality and efficiency of collections care and space in the future. When combined with the Digitization Assessment and Planning, this information helps to establish an organizational strategy to ensure improved preservation and accessibility of our physical and digital collections assets.

For many of these efforts, final data are still pending. But we know the indications of these studies point to the need for more resources to address insufficiencies. We know that targeted funding helps us remediate conditions and deficiencies that have existed for many years.

Increases in Federal appropriations from fiscal year 2006 through 2012 totals \$10 million, enabling significant improvements in collections management, such as:

- Addressing OIG audit recommendations regarding deficiencies in collections inventory;
- Stabilizing, re-housing, and inventorying millions of collections items for long-term preservation and accessibility;
- Purchasing space-efficient storage units and replacing substandard cabinetry; and
- Conducting collections and preservation assessments to establish priorities and action plans for the allocation of collections care resources.

Additionally, there are many expenses characterized in other ways, such as exhibitions or maintenance, which directly support and enhance stewardship of the collections.

The current budget state, sequestration especially, comes as a particular challenge for us at the Smithsonian. Our central collections care funding was cut by 60 percent this year

because of sequestration. That is a modest estimate given the significant trimming of museum budgets and other activities which directly impact but are not specifically characterized as collections. We have incredible challenges to address and yet our budget is stretched thin, which will adversely impact the recent progress we have made. The level of current funding jeopardizes the Smithsonian's ability to meet its collections stewardship responsibilities and places collections at risk of loss or damage.

In FY 2014, the Smithsonian will continue to build on these important planning initiatives and follow an action plan for strategically addressing the critical preservation, storage, and digitization needs of our collections, based on the results of the Institution-wide collections condition assessment, digitization assessment, and collections space framework plan. The Institution will continue to take a strategic multifaceted approach—both localized and pan-Institutional efforts—by prioritizing and systematically addressing critical collections needs based on current care methodologies, sound assessment data, economies of scale, and project-driven activities (including collection moves). We will continue to address IG audit recommendations. The Smithsonian will continue to seek additional private funding, as well as external partnerships, to improve collections management while leveraging available resources to support Institution-wide initiatives that strategically address the most critical collections needs.

We have shown what can be accomplished with targeted investment. While each of the three initiatives I've mentioned is critical in sound management of the collections, and requires funding, they are not resourced in the same way. The space planning initiative is a nearly three million dollar investment on top of an already rigorous process for capital investment. In contrast, while our National Collections Program is moving into a more proactive planning and policy role from the more passive coordination role it had for many years, it remains a two-person office. With digitization and collections care, we are building centralized process and oversight where it had been previously decentralized. We recognize there are issues that are too small for capital planning and yet too large to be tackled uniformly with limited resources. Funding for collections storage equipment, the cabinetry itself, is just one example we have yet to sufficiently address.

And yet, thanks to strong leadership and collaboration, our internal directives are the best in the industry. Our internal directives outline, at the unit level, a rigorous process, accountability and planning, but they are not yet integrated at the level of a strategic plan. These pan-Institutional efforts provide us key tools and insight for improving the management, care, and accessibility of collections, but we must sufficiently resource these efforts. Because of sequestration, we have already reduced our central collections care resources by more than half, and face more problems next year if sequestration continues.

There are more projects we must undertake, more collections that require improved preservation and greater accessibility in more ways for scholars, visitors and students. Because collections stewardship is fundamental to the Smithsonian's mission, there is a

critical need for new resources to accomplish basic collections management activities for accountability, preservation, storage, digitization, and accessibility of our collections. We will continue to solicit private support and grants for collections care, storage, and digitization. But we need your help and financial commitment to share and maintain America's treasures.

The CHAIRMAN. The chair now recognizes Mr. Dahl for his testimony.

STATEMENT OF SCOTT S. DAHL

Mr. DAHL. Good morning. Thank you for the opportunity to testify about the Smithsonian's collections care challenges. All of us here agree that collections care is critical to the Smithsonian's mission and that management plays an essential role.

The Office of the Inspector General also serves an important oversight function in collections stewardship. Over the last several years, we have conducted collections care—collections management audits on three of the largest museums on the National Mall that combined house nearly 99 percent of the Smithsonian's collections.

In our audit of the American History Museum, we found that many collections were stored in substandard conditions and that storage equipment and buildings were deteriorating and contained hazardous materials. Particularly troubling were the storage conditions at the Garber facility in Suitland, Maryland. Objects stored there were at significant risk of damage.

We also found that required cyclical inventories were not being done, and inventory records were often incomplete and inaccurate, leaving conditions or collections objects vulnerable to loss and theft. In fact, during our sample inventories of collections, the museum could not locate 10 percent of the objects in our sample, including some items of great value and significance.

Management concurred with our recommendations and has completed almost all of the recommendations that we have made. We have evaluated management's submissions to us to determine whether they adequately address our recommendations.

In reviewing our prior collections audits, we found that many of the same issues occurred across several museums. Rather than conducting an audit of another museum, we decided to approach our oversight of collections care from a pan-institutional perspective. We also highlighted these systemic patterns of collections care challenges in our 2012 report, which the Chairman mentioned, the "Top Management Challenges," which identifies the most critical problems that the Smithsonian faces. In that report, we once again emphasized the need for the Smithsonian to address the collections care challenges pan-institutionally. Management generally agrees with our pan-institutional emphasis, and Scott Miller and his office have moved forward on the three strategic initiatives for collections stewardship that Dr. Miller and Dr. Clough referred to earlier.

The three strategic initiatives partially overlap with the collections care areas that we identified in our top management challenges. We are assessing the impact that these initiatives are having on collections care in our recently announced review. In addition, we have been evaluating plans that management has submitted in response to our recommendations. While plans are a very important first step, they need to be implemented in order to have an impact on collections care problems. The implementation of many of these plans is at risk because implementation is largely contingent on increased funding levels. In fact, management has cited resource constraints as an impediment to addressing collections care problems. We acknowledge the decline in funding for col-

lections care, and we expect that trend will continue. Smithsonian's own policy shop advised management in 2005 to seek other avenues for additional funding for collections care, including from private resources. Dr. Miller mentioned that they are exploring those alternatives now.

Another impediment to full implementation is the Smithsonian's decentralized approach to collections management. The collecting units are still largely free to set their own standards and allocate resources for collections care as they see fit. Scott Miller does not have the authority to make most of those resource allocation decisions. Going forward, we will continue to monitor the Smithsonian's implementation of our previous audit recommendations, and we have initiated a review of these three pan-institutional collections care initiatives.

We remain concerned about the substandard and hazardous conditions at Garber and will continue to monitor progress there. By strengthening the Smithsonian's cross-unit collaboration and implementing a more risk-based, prioritized plan throughout the entire institution, we believe collections care will be improved.

That concludes my statement. I am happy to respond to any questions. Thank you.

The CHAIRMAN. Thank you very much.
[The statement of Mr. Dahl follows:]

**TESTIMONY OF SCOTT S. DAHL
INSPECTOR GENERAL, SMITHSONIAN INSTITUTION
ON COLLECTIONS STEWARDSHIP AT THE SMITHSONIAN
COMMITTEE ON HOUSE ADMINISTRATION
U.S. HOUSE OF REPRESENTATIVES
JULY 17, 2013**

Chairman Miller, Ranking Member Brady, and Committee Members:

Thank you for the opportunity to testify about the Smithsonian Institution's collections care challenges. Collections are at the core of the Smithsonian's mission, and their care is an essential and critical part of management's responsibilities and the OIG's oversight function. I will focus my attention on systemic issues involving collections care at the Smithsonian that we identified in prior work and our oversight plans to ensure improved stewardship of the nation's treasured artifacts.

Importance of Collections Care at SI

The Smithsonian Institution is the world's largest museum and research complex, including 19 museums and galleries, 9 research facilities, and the National Zoological Park. The total number of artifacts, works of art and specimens in Smithsonian is currently estimated at more than 137 million, the bulk of which is housed at the National Museum of Natural History. Most artifacts are donated by individuals, collectors, and federal agencies to form the Smithsonian's permanent collections, held in trust for the American public.

Among these collections are irreplaceable national icons and specimens vital to the study of the world's scientific and cultural heritage, ranging from insects and dinosaur bones, to President Abraham Lincoln's top hat and the Space Shuttle Discovery. Less than 2 percent of the Smithsonian's collections are on display in the museums at any given time. Smithsonian collections serve as resources for answering significant scientific questions or educating the public. As such, the collections play a vital role in advancing scientific knowledge, addressing societal issues, and increasing the historical literacy of the nation.

Collections care and preservation are important to reduce the loss of the educational, research, and exhibit value of the objects. Collections continue to grow, standards in preservation evolve, and new technologies are introduced, all creating increased demands on the collections, making their care essential. Therefore, collections care should be viewed and managed as a critical part of the Smithsonian's mission.

OIG Oversight

Over the last several years, we conducted collections management audits on the three largest and most visible museums on the National Mall (National Museum of Natural History, National Air and Space Museum, and National Museum of American

History), as well as the Cooper-Hewitt, National Design Museum in New York. Through these audits, we identified a pattern of issues concerning collections care, such as inadequate preservation practices, insufficient inventory controls, and security of collections areas not meeting Smithsonian standards.

Inadequate Preservation Practices

During our audit of National Museum of American History (NMAH), we found that many collections were stored in substandard conditions not conducive to long-term preservation. Some storage equipment and buildings were deteriorating and contained potentially damaging or hazardous materials, such as lead, asbestos or arsenic, that posed risks to both staff and collections. In some cases, pipes and conduits were exposed, resulting in frequent leaks that also threatened collections. Furthermore, NMAH did not have a comprehensive preservation program to mitigate the deterioration of objects.

We were particularly troubled by the collections storage conditions at the Paul E. Garber Facility in Suitland, Maryland. Approximately 400,000 objects stored at this facility were especially at risk of damage. Built in the 1950s and 1960s, these buildings have exceeded their intended useful lives as temporary storage. Some are contaminated with hazardous substances, and many are inadequate to withstand natural disasters. With the collapse of one of the buildings from snow and wind in February 2010, and damage to other buildings from the earthquake in August 2011, the risk to the collections has been clearly demonstrated.

As a result of these findings, we made recommendations to Smithsonian management that addressed these deficiencies, including: developing a prioritized plan for addressing pan-Institutional collections storage needs; exploring opportunities to increase or maximize existing storage space; replacing substandard storage equipment; developing and implementing a plan to remove and decontaminate objects from storage facilities containing hazardous materials; and establishing and implementing a preservation program at NMAH.

Smithsonian management concurred with all of our recommendations. In response, management has developed a prioritized, project-specific plan to replace substandard storage equipment and housing materials in collection storage areas. Management has implemented this plan in three specific collecting divisions at the museum. In addition, management has drafted a *Collections Space Framework Plan* with recommendations for addressing current and projected Smithsonian-wide space requirements. Management also has commenced work to address some of the collections space deficiencies at the Garber Facility.

Insufficient Inventory Controls

In our audit of NMAH on inventory issues, we found that collecting units had not developed or consistently followed inventory plans. Cyclical inventories, including those of highly sensitive objects, were lacking, and inventory records were often

incomplete and inaccurate. The lack of inventory controls leaves collections objects vulnerable to loss or theft, diminishes accountability, and reduces the scholarly value of the objects.

For example, during our sample inventories of collections, the museum could not locate 10% of the objects in our sample. The missing items included ancient Greek, Roman, and Arabic coins; silver and bronze medals; gold timepieces and watches; and items from a large collection of coins and tokens featured on national television.

We made recommendations for management to fix these problems, such as to develop and implement a prioritized plan to conduct and document inventories in accordance with Smithsonian policy. We further recommended that management develop and implement criteria to identify all of its highly sensitive objects, as well as standards for tracking these objects within the collections information system.

In response to our recommendations, management has developed a collections stewardship plan which addresses management's methodology for implementing several of our inventory recommendations, including procedures for conducting and documenting inventories, reconciling the results, and ensuring that all objects have complete and accurate collections records. Management has also developed and implemented criteria to identify highly sensitive objects and track these objects in the museum's collection information system.

In addition, the museum management continues to implement its collections stewardship plan through a prioritized, project-specific approach. NMAH is currently assessing staffing needs in order to make accurate and informed budget requests.

Addressing these inventory issues is important for safeguarding the collections. In addition to the items that could not be located during our audit sample inventories, insufficient inventory controls have also impeded our investigative inquiries into missing objects at the Smithsonian. Often, due to lack of sound inventory practices, we could not determine if the items were lost, misplaced, disposed of, broken, or stolen.

Inadequate Collections Security Controls

In our collections audits, we found that several collections storage areas had inoperable or malfunctioning security devices. Additionally, some museums permitted improper access to their collections and collections records. This included unsupervised access to collection storage areas by researchers and volunteers, inadequate screening of individuals with access, and poor controls over keys to collections storage areas. These security deficiencies increased the risk of theft, loss, or damage to objects.

We recommended that the Smithsonian implement security policies and procedures to improve security controls in collections storage areas. At NMAH, Smithsonian management prioritized security device upgrades, improved controls over keys to collection storage areas, and refined and implemented stricter access to collections storage areas.

Similarly, in our investigations, we have looked into thefts of objects that may have occurred due to insufficient security measures identified in our audit work. In one instance, during our investigation of stolen objects, we found malfunctioning security devices on a door, poor key control, and inadequate screening of volunteers. These problems were factors that allowed the theft to occur.

Process for Evaluating Recommendation Implementation

Management has completed most of the recommended actions in our collections audits. As part of our process for ensuring completion, we reviewed the requested plans and evaluated the implementation measures where applicable. The work involved to fully implement several of these recommendations is ongoing, and we continue to monitor management's progress.

Pan-Institutional Approach

In reviewing our prior collections audits, we found many of the same issues relating to inventory controls and security across several museums. See charts below.

INVENTORY					
MUSEUM	Date Report Issued	Lack of cyclical inventories	Incomplete object records	Missing objects	Insufficient resources allocated to collections management
NMAI Move	Oct. 2001		X		
NMNH	Sept. 2006	X	X		
NASM	Mar. 2010	X	X		
NMAH Phase I	Feb. 2011	X	X	X	X
Cooper-Hewitt	Sept. 2011		X	X	

SECURITY					
MUSEUM	Date Report Issued	Missing or broken devices	Unlocked doors and cabinets or poor key control	Required security devices not installed	Improper Segregation of Duties: Access to Objects and Records
NMAI Move	Oct. 2001	X	X		X
NMNH	Sept. 2006	X	X		
NASM	Mar. 2010	X			
Cooper-Hewitt	Sept. 2011				
NMAH Phase II	Sept. 2011	X	X	X	X

To better address these patterns, we decided to approach collection care issues from a pan-Institutional perspective. Rather than conduct an audit of another museum just to find the same types of issues, we instead urged management to use our previous audit recommendations, including those directed to specific museums, for addressing the problems across the Institution.

For example, on inventory controls, we recommended in one audit that management “establish and implement a plan to conduct a full inventory of the museum’s collections” that includes a prioritized list of the inventory needs. In addition, we recommended that management “strengthen and standardize collections management elements in performance plans” for museum management that includes requirements to conduct cyclical inventories. These recommendations have clear pan-Institutional application.

Likewise, on collections security standards, we recommended in the same audit that management “develop and implement a prioritized plan” to bring the museum’s collections storage areas into compliance with Smithsonian space security standards. This recommendation also could be applied across the Institution.

We also found pan-Institutional applications for several of our recommendations involving preservation issues identified in our most recent audit of NMAH. In one recommendation, we asked Smithsonian management to develop a prioritized plan for addressing storage needs. Furthermore, we recommended that management “establish and implement a Preservation Program,” as required by Smithsonian Directive 600 “Collections Management,” including prioritized plans for conducting staffing and preservation assessments, as well as preservation and curatorial staff training.

Moreover, we highlighted these systemic patterns of collections care problems in our 2012 report on "Top Management Challenges," which identified the most critical issues that the Smithsonian faces. In that report, we emphasized the need for the Smithsonian to address collections care pan-institutionally. Consistent with our audit findings, the three primary challenges we listed are: (1) improving preservation practices; (2) strengthening inventory controls; and (3) meeting collections security standards.

Management agreed in general with our pan-Institutional emphasis on collections care. Rather than applying our audit recommendations Institution-wide, the Deputy Under Secretary for Collections and Interdisciplinary Support (DUSCIS) had already moved forward on strategic initiatives for collections stewardship in the following three areas: digitization, physical condition of collections, and collections space planning.

Management's three strategic initiatives partially overlap with the collections care areas we identified in the Top Management Challenges. We are presently evaluating the impact that management's initiatives are having on collections care challenges in our recently announced review.

In the meantime, we have evaluated plans from both museum and Smithsonian management addressing our inventory, preservation, and security recommendations. These plans are an important first step, and management has begun implementation of these plans. However, the full implementation of many of these plans is at risk because implementation is largely contingent on increased funding levels, rather than assuming existing resources.

In fact, in response to many of our recommendations, management cites resource constraints as an impediment to full and timely implementation. We acknowledge the decline in funding for collections care, and in the current federal budget environment, we do not expect that trend to change. This fiscal constraint was previously articulated by my predecessor, A. Sprightley Ryan, in her December 2009 testimony before the House Committee on Appropriations (Subcommittee on Interior, Environment and Related Agencies):

We understand the resource constraints that prevent more comprehensive collections stewardship, from accurate and complete inventories to sound preservation, but we believe that the Institution could do more pan-Institutional planning and prioritizing to use whatever resources are available.

This funding challenge also was identified in 2005 by management's own consulting arm, the Office of Policy and Analysis (OP&A), in its lengthy report entitled "Concern at the Core: Managing Smithsonian Collections." In that report, OP&A predicted:

It is unlikely that the Congress will provide all the funds required to bring ongoing collections management up to desired levels. Indeed, the Congress may not even provide sufficient funds for priority projects such as the completion of basic inventories and collection profiles. . . .

OP&A therefore recommended that Smithsonian seek other avenues for additional funding for collections care activities, including fundraising from private sources. OP&A pointed out that “[n]either the central administration nor the individual collecting units have engaged in major efforts to solicit philanthropic funds for collections management, other than for acquisitions.”

In addition, OP&A identified another impediment to effective collections management. Despite a Smithsonian-wide collections management policy, collecting units “are free to set their own standards and allocate resources.” In this decentralized approach to collection management, “the level of attention devoted to collections care largely comes down to the priorities of unit directors.” OP&A recommended that a centralized authority work with museums to clearly define standards of care for compliance with Smithsonian policy — including conducting inventories and significance assessments — and then monitor whether museums are adhering to those standards.

While management has made some progress in establishing these standards, the DUSCIS does not have authority to enforce compliance or make material resource allocation decisions concerning collections care. That authority, involving resource management of collection care, still resides primarily with the museum directors.

Going Forward

We will continue to monitor Smithsonian’s implementation of our previous audit recommendations. In addition, we have launched two reviews that further examine collections care challenges.

In June 2013, we initiated a review of Smithsonian’s pan-Institutional collections care initiatives discussed above. This review will continue our ongoing monitoring and assessment of the Smithsonian’s progress towards improved collections stewardship. Our objectives are to evaluate the impact that Smithsonian initiatives have on collections care, assess management’s plans for using the data collected to date in addressing collection care issues Smithsonian-wide, and examine future funding and contingency plans for collections care.

Earlier in 2013, we initiated an audit of high-value object transportation security. For this audit, we will review the security protocol and standards for transporting high-value and high-risk value objects. However, management currently has in process a draft policy that would address many of the issues we intended to review. To allow management time to implement the changes, we suspended this audit but will resume the review of this important area next fiscal year once the policy is in place.

As SI management moves forward on its pan-Institutional initiatives, we urge management to continue to make it a high priority to further mitigate the significant risks posed by the substandard storage conditions at the Garber Facility.

Through ongoing monitoring of implementation and future audits, we will continue to emphasize the need for the Smithsonian to address collections care issues Institution-wide. Collections are at the core of the Smithsonian, and the challenges increase due to growing collections and tighter budgets. By more effectively addressing these perennial challenges, Smithsonian will ensure that its invaluable collections will be available for generations to come.

The CHAIRMAN. And we thank all the gentlemen for their testimony. Very interesting, I think.

And as we sort of focus here on collections care, all of you mentioned the same thing, really, or are certainly cognizant of the fact that the decline in funding. And no end in sight, let's face it, for anybody really within the Federal structure, as we are about to be voting in the fall on a—raising the debt ceiling, et cetera. We have enormous fiscal constraints in our Nation for all kinds of things.

But as we think about some of the priority collections in the storage, et cetera, I was trying to listen closely, the secretary was mentioning—I started making some notes and then stopped about some—Udvar-Hazy and Landover, Maryland, New York, some of the things you have done at the greenhouses, et cetera. I guess my question would be, as far as the current capacity for storage for all—for your entire collection, and is there anything in imminent threat? Mr. Dahl mentioned Garber. I am not sure where Garber is. I guess that would be part of my question. Where is Garber, and what is actually in it? You raised some concerns about that particular storage facility. But is there anything that is really an imminent threat that needs to be addressed? And also, I guess, it is sort of like the short term, but long term, as you continue to collect with your collections, are you collecting things that you have a concern that you might not be able to store or have the capacity for? And I am sure that goes into your strategic plan as well. And maybe you could enlighten us a bit on that also.

Mr. CLOUGH. Thanks. And I will try to give an explanation of that. Garber is part of a facility in Suitland, Maryland, which now has a high-end, sophisticated center for our collections. But initially, it was more of a warehouse. And so the early stage construction there was deemed to be temporary. And so a lot of metal buildings were put up with relatively rudimentary ability to control environment and things of that sort. And as you imagine with the old buildings, there were some asbestos problems and other things there.

The intention in the long run, as I understand it, was to get rid of those buildings as new facilities were built. I referred to something called the Pod 5 and Pod 3. There is a set of buildings that actually has five pods now, which are very sophisticated collections buildings, state of the art, absolutely the best in the world. In addition, we have collections there for the American Indian Museum in their particular center, which is also a state of the art facility.

Over time, the Smithsonian found it was not able to get rid of the older buildings as the collections grew because it needed the space. So, with time, as we build these new facilities, we are trying to move things out of those buildings, which, in some cases, you would prefer not to use.

Now, we did have a building that collapsed—you mentioned a concern—in the large snow event that we had a few years ago. And as a result of that, we did a structural reevaluation of each and every one of those buildings. And we have addressed most of the problems that were identified as most critical. We still have three buildings that we have concerns about that we would like to get out of. But gradually, as we built the Landover facility and Udvar-Hazy facility, we have moved collections out into those new facili-

ties. And that is been a big improvement for us. And we got rid of the building, obviously, that collapsed. So that is probably the area that we have the greatest concerns for. We would like to get out of that. And it will just take some time to build new facilities and take the collection out of those areas. I think otherwise we feel positive about where we are. American History also remains a bit of a challenge because it has a very old collection. It is a building that was built in the 1960s. It needs renovation. That is a process that will take place in stages. We don't want to shut the whole museum down, so we do it in stages. So American History, as was identified by the inspector general correctly, is an area where we have concerns. But other than that, we have done, I think, a good job of bringing the facilities up and addressing some of the most serious problems.

The CHAIRMAN. So that is sort of the short item. As you look long term perhaps I would—first of all, Mr. Dahl, whether or not you agree with that assessment and, Mr. Miller, what you see long term. Some of the newer collections that you are going to be—I mean, the T. Rex, for instance, I—various things that you are collecting and how you are going to be storing those, et cetera.

Mr. DAHL. Chairman Miller, we—we remain concerned about the conditions at Garber for the reasons that the Secretary has mentioned. Some of those buildings are in decline, and the collections need to be moved out of there. They are making—we have been monitoring this progress, as the Secretary noted, through structural supports and moving some of the more valued items to other storage centers. But we, as the Secretary, remain concerned about the conditions there.

The CHAIRMAN. Mr. Miller.

Mr. MILLER. Let me first just add to the secretary's remarks about the three buildings of specific concern at Garber, we have the plans now in place for the replacement of those buildings and the decontamination of those collections, and that new construction will start in the beginning of the next fiscal year.

Regarding the longer-term issues, that really goes to the space planning study that we have done where we have looked very carefully at every space across the Smithsonian that relates to collections uses, and that's 2.1 million square feet of space. And we have identified which of those need replacement or renovation. We have also identified what we need to deal with incoming collections, according to our projections. We have done three pilot studies looking at how we can better use space in the downtown museum buildings, how might we better use the Suitland facility that the secretary mentioned, and also, how might we build a facility for large objects at the Dulles campus where the Udvar-Hazy Center is. And we are proceeding with that planning. It is clear that in the long term, to deal with the challenges at the American History Museum, we need new offsite storage. There is just no expansion space in that building to allow us to decompress those collections and deal with that in place.

Mr. CLOUGH. I had a quick comment.

The CHAIRMAN. Certainly.

Mr. CLOUGH. One of the things that we are working hard on is looking at ways to use a public-private partnership aspect of the

Smithsonian to best effect to address these problems. The Udvar-Hazy Center was built entirely with private money, and it has a marvelous archival system in it. In some cases, we are able to get donor support for digitizing collections and particularly for what I would call enthusiast areas. The Archives of American Art, for example, has a large following of folks. And we were able to get a foundation to give us \$6 million to undertake a serious effort at digitizing their collections. That gives the public more access to them, that gives scholars more access to them. In addition, it means less movement of collections, less damage to collections over time. It protects the collections, and better inventory control when we can undertake these activities.

And, in addition, we are looking at simply more productivity. The more we can use digital assets and move digital assets around, the less we need an actual, physical person to move these things around. And so we are trying to increase our productivity as well as look at donor support and other ways in which we can address these challenges.

The CHAIRMAN. I think I will just follow up on that. You are talking about digitizing, digitizing all of your various collections, et cetera. I am not a great—I am not great on technology, although, believe it or not, our committee actually has everything on our iPads here for this. It is the first time we have done this at our hearing. I have all my opening statements and various things on there. So we are trying. But that is an effort, right?

But, you know, when we think about the fantastic collection that you have, and, as I say, such a national treasure and how we can allow every American to access the fantastic treasure trove of information and collections that you have at the Smithsonian, I am not really clear on how the digitization is working. Actually, I have been trying to go on the Internet to find out exactly what I can see there in an asymmetrical 3-D type of way to your collections, et cetera. And I think when we think about a major component of revitalizing education—and, of course, today's kids are used to accessing almost everything electronically. How is that—how can that help a school district in my district, for instance? How could I go a teacher or principal and say, look, do you even realize what the Smithsonian has available for your students? And how they could access all of this.

Mr. CLOUGH. I think there are really three aspects of that. One part of it is the physical digitization of an artifact. And that is a physical act that has to take place, which is time consuming and labor consuming. We are actually looking at robotics as a way to find a more automatic way, because of the scale of our collection. But that is a challenge for us because of the size of the collection. So that is one aspect of it.

Now, we are working hard to find other ways to do this. It is not just a question of incidentally making an image of an object. We would like today to make a 3-dimensional image of the object that you can put on your pad or tablet, and rotate. A student can do that and understand it. But the second part of that is what we call the metadata, and that is describing what the object is. It doesn't do you any good just to see an image if you don't know what the object is. So our objective really is to put metadata against this ob-

ject so you know what it is, where it came from, how it was made, all those kind of things, and what date and so forth that it was made.

So we are looking at using volunteers, digital volunteers, to help us with that. The National Postal Museum has done a great job of vetting about 160 people who are philatelists, who love stamps—and many Members of Congress, incidentally, love stamps, it turns out. They can actually help us add metadata, which we would vet, but they would do some of the work for us, if you will, in terms of that. So we are looking at ways to get volunteers—volunteers want to help the Smithsonian. And we have 6,200 physical volunteers; why not have digital volunteers to help us? So we are creating a volunteer page where we will offer tasks to people if they would like to help us. If you are into coins or you are into First Ladies' gowns, we can let you help us in that regard.

The second part is then access. Once you digitize something, how can we make it easy for you to access it? And so we are working on our search engines, which, frankly, aren't where they need to be. We were very fortunate to compete for President's Innovation Fellows. There are 40 or so of those that were put up for bids this year. We competed and won three of them. And so we have three folks working with us who are from industry who are uniquely talented in this area. One is a specialist in search engines. We are going to work with this particular person to help lift our search engines to another level to make it easier for people to use these.

And then, finally, you need to put these things into contexts that are useful for teachers and for students, enthusiasts, for that matter. That means you go to lesson plans. We know that teachers want adaptable lesson plans. We need to give them raw material; they will create the lesson plan. But also focus it on State standards. We are working hard with the Department of Education on trying to make sure all of our aspects meet State standards. We have a group of about 500 teachers who are focus groups for us to help us as we are doing this work and to create things that they really want.

Another challenge is to make sure we are putting something up that people want to see. Because in our vast collections, not everybody wants to see everything. We are trying to get smarter about what people want from us so that we can use our resources, which will be stretched, no matter what, in a more effective way.

The CHAIRMAN. Very good.

And before I turn to my ranking member, I think I am going to ask you to assist our staff, actually, on something that we have been working on, a piece of legislation that passed this committee and passed the full House. Congress for years has had this artistic discovery with the art you see in the tunnel when you are going in—all of our different districts have a competition for art. But this—we are putting together our staff here and House of professional staff is putting together a new competition for STEM for an app for the kids. Right? They got an app for this, for the STEM kinds of things. And we think that that could be a fantastic competition. And kids need to be recognized, not just for their expertise in sports but in the sciences and engineering, et cetera, et cetera. And we may be calling you to assist us a bit as we put together

the parameters for that type of competition. And the Smithsonian would be a great——

Mr. CLOUGH. One other small aspect about this is digital badging, which has become very important. Once the teacher or the student has access to the materials, how do they prove they got something from it? So we have a digital badge, sort of like the scout badge, that a student can earn when they show that they have completed a task and actually finished it to the satisfaction of our experts. We have about 120 of these badges now. Many are the area of STEM education. It gives a student a chance to be certified that they actually did the work.

The CHAIRMAN. Very good.

Chair recognizes ranking member, gentlemen from Pennsylvania.

Mr. BRADY. Thank you, Madam Chairman.

Mr. Secretary, Smithsonian doesn't charge any entrance fees. With the sequestration, would you think that may have any change to that?

Mr. CLOUGH. So far, we have avoided charging admission fees to our museums. My philosophy on it has been affected by my daily observations of visitors to our museum. The American people, as I see it, have helped pay for our buildings. They have helped pay for the collections and the maintenance of collections. It seems kind of a shame to charge them again to see something they own. Really, I always tell people when I give talks, you own our collections and you should take advantage of them. So that is the philosophy.

The second thing is if you charge admissions, the challenge will be that it costs money to collect those admission fees. And so you can't charge a small amount; you have to charge a relatively large amount. And, in addition, because we have visitors who like to be able to visit multiple museums, then you would probably deter their ability to visit the multiple museums that they come to see.

We are a little different than most museums that, and our zoo, of course, in that we have a lot of folks who don't have a lot of money coming to visit. They don't have enough money to buy things in our stores. And they sit outside, and they make their own lunches and so forth. And, to me, it is very moving to see people be able to really enjoy something that they paid for and they own.

Mr. BRADY. I appreciate that, sir.

For the record, I am against charging for admission.

So I am in agreement with you.

The African American Museum, will that make the deadline in 2015? The opening? African American Museum.

Mr. CLOUGH. We are still shooting for an opening in 2015. Our plan originally was November of 2015. That is sort of tied to the end of the Civil War as an anniversary. We have worked hard to maintain that schedule and stay on budget. We have had some challenges; construction encountered some difficulties at the end of last year and early this year. As you know, I am an engineer. And the site is on 14th and Constitution. That happens to be a location where the Tiber River used to be. So the river used to run through that area and actually was used to deliver construction materials to the Capitol building. And so they had a deep excavation well under the water table into some gravelly, open materials. And so they had some water problems that actually challenged them.

Clark Construction, I think, did a great job of recovering from that, but it cost some time. We had a little schedule slippage. We still are within the contingency that we set for the project. So we still hope to open in November of 15. That is still our plan.

I am sorry.

Mr. BRADY. Thank you.

One other quick thing. I understand that there will be some submissions with the restaurant employees and the McDonald workers that they are not getting a living wage. I appreciate what you said about people outside making their lunches, and you sympathize with them. I wish that you would sympathize with the people that are inside making lunches for the people that are coming in when you do your contract and make sure that they may be able to get—or listen to them, anyway. They have been to see me. Told them I would bring the question up. I think they may make a little bit less than we even pay on our side of the—with our concessions here in the House and the Senate. And that is the McDonald workers and the restaurant associations. And I think their contract may be coming up in 2015, also, if you would take a look at that. And I may have to talk to you a little bit further with that if you don't mind.

Mr. CLOUGH. Sure. We are certainly aware of their concerns. And they have presented petitions to us, which we have read very carefully and brought to our Regents. Basically, the food service workers are employed by our contractors. We were encouraged by Congress, and we thought it was a good idea some time back to outsource that business, both for our retail stores and for food service and for some of our other activities. And we follow the standard and local processes. So we follow all laws and all policies that are set by local government and by the Federal Government in working with those contractors, that the contractors have to provide and meet all laws and policies of Federal government and the local government as far as that is concerned. And so we also try to make sure that everybody has avenues for their grievances, that they are not denied access to their grievances process. That is something we are very concerned about.

Mr. BRADY. I appreciate that. Thank you, Mr. Secretary, Mr. Miller, and Mr. Dahl.

And thank you, Madam Chairman.

Mr. CLOUGH. Thank you.

The CHAIRMAN. Thank you, gentleman.

The chair now recognizes the gentleman from California, Mr. Vargas.

Mr. VARGAS. Madam Chair, thank you very much for this opportunity, and also for this hearing. The ranking member also.

I want to thank the witnesses for being here. I do want to ask, the first question, about the collection itself. I have had the opportunity to go both to the Hermitage in St. Petersburg as well at the Louvre. And one of the things I think that hits most of us when we get there is they are not always air conditioned. And you wonder about the collection there and some of the incredible works of art. Could you comment a little bit about that? Because I know we are talking about collections here and the maintenance of them. Could you talk a little about our own system here?

Mr. CLOUGH. And I will defer to Dr. Miller because he is a bit more of an expert on this than I am. But the collections, obviously, require humidity, temperature, and lighting control. These are important aspects. Some collections are more sensitive to that than others, clearly. But that is part of our challenge, for example, in energy conservation in the Smithsonian. We are trying to save money everywhere we can, and yet this is a challenge for us because you can't shut the temperature and air conditioning controls off on weekends or when someone is not visiting the collections. And so this is a big challenge for us. It is just a continual challenge. Collections are a day-in, day-out responsibility; you can never let up on collections. Works of art, particularly, are sensitive to temperature and humidity and lighting. My office, for example, has works of art from a number of our museums, and the curators from those museums come by because the Castle Building is not well air conditioned or temperature controlled. They change paintings out, out of my office, because they don't want to leave them there too long. So I know it is something they are very sensitive to.

The Smithsonian has helped set the standards for these, and it is something that we are very concerned about, particularly in some of the older buildings.

But Dr. Miller may want to comment on that.

Mr. MILLER. Well, I will just add that we do have one of our units, the Museum Conservation Institute, where they really have the expertise on the physics and chemistry of degradation of materials. And then the corollary of that is, how do you slow down those degradation processes? And so they help set the standard for temperature and relative humidity in museum collections some 30 years ago. And we actually, as I mentioned in my remarks, just had a national and in fact international summit, where we brought in the best experts, not only internally but externally as well, to relook at that question of the balance of temperature and relative humidity of standards for collections with the specific view of now green buildings. How can you balance energy consumption with long-term stability of physical objects? We will be recommending some small changes in that that we hope will help with energy conservation in our own buildings and museums around the world.

Mr. CLOUGH. I might add to that, one of the things we do as we see ourselves as a leader, as part of our responsibility, we have about 180 museums that are called affiliates. And we share collections practices with them. Every year we have an annual meeting here, which we just held. And three of those museums, for example, are in San Diego. So our objective is, as we learn these things, is that we share them, particularly with our affiliate museums and others.

Mr. VARGAS. You have to tell me, then, which three museums are they in San Diego? Since I am from San Diego.

Mr. CLOUGH. The Marine Museum; the Museum of Man, which is your natural history museum; and your Air and Space Museum.

Mr. VARGAS. Okay.

Mr. CLOUGH. And we are working also with the development in Balboa Park to give advice and consultation. And there is a new exhibition coming up in 2015, marking 100 years since you cele-

brated the Panama Canal in 1915. We have been asked to share some of our collection objects from the Panama Canal days. The Smithsonian, as you may know, was invited during the construction of the canal to do the bioassay around the canal, because you are going to change the ecosystem there with the canal. So, through that effort, we now have the Smithsonian Tropical Research Institute, which is the best in the world, and it is located in Panama. We have a great relationship with the Panamanian government and the Canal Authority. We will be loaning objects so they can, in essence, create a way for viewers, museum goers, to go to one museum and then go to the next museum and go to the next museum and have a continuity. And we are excited about that.

Mr. VARGAS. Madam Chair, that is no fair. They are playing to the crowd on me on that one because they know how important that is. It is hard for me to ask tough questions when they talk about San Diego, and especially how excited we are about the hundred years of Panama Canal exhibits there.

But thank you. I do appreciate that. But I do want to continue this line of questioning just because, again, we collect old furniture, Stickley furniture, that is American furniture from Gustav and the brothers. And one of the things that is very sensitive, of course, is the changing of both the humidity, the heat and light exposure. And so my concern when I went to the Hermitage and when I went to the Louvre was to see, wow, they really don't, except for where the Mona Lisa is, they seem to be quite good about controlling. I think they even have an individual control for the painting itself. But other than that, there does seem to be a laxness. And certainly at the Hermitage, with these incredible works, I went there in the winter, unfortunately, and it was surprised at how cold the old palace was. So, again, my concern is that these—you know, these incredible works that we have will be damaged because of this lack of control.

And the reason I was going to ask that is I—I do see, Mr. Secretary, on your testimony, page number 7, the amount of money—and if I could just read it to you—"the current budget state sequestration especially comes at a particular challenge for us at the Smithsonian. Our central collections care funding was cut by 60 percent this year because of sequestration." Now, that is a very significant cut. If you could comment on that just a little further. Because that does concern me.

Mr. CLOUGH. Sure. And that was not something we wanted to do, obviously. But the collections care pool is a special pool that we created. It was created just before I came. It was about a million dollars when I came, we got up to \$5 million now, thanks to the help of Congress, which has added budget lines in that area for us. That is a strategic pool to address critical problems. And so when we find that there is a particular problem the IG might identify or we would identify, we use those funds to rush in and try to address it—so we don't want to let a problem fester, if you will. We put in roughly each year about \$60 million, actually, in the collection. So what you are referring to was just the pool. And that was a 1-year stoppage or shortcut because we wanted to avoid cutting people, because there are about 450 people at the Smithsonian who are in-

volved in collections care. And if we cut back there, that would be a permanent cut in collections care. So our choice was to cut back on the small area of pool funds for 1 year while we could think through how we would address any additional cuts that we might be facing and absorb them in a more logical way permanently. So it has just a short term type of thing.

Mr. VARGAS. Thank you very much.

I know my time has expired, Madam Chair. Thank you very much. And really appreciate the work that they do. I think it is an incredible museum and one that we are very, very proud of.

Thank you, Madam Chair.

The CHAIRMAN. Thank the gentleman.

I am going to ask just a couple more questions, since I am the chairman, I have a little time, and we can have a second round as well.

But I think I will just follow up on this about the—you mentioned you had—I just wrote 450 people in collections care. And I thought it was interesting that the IG actually pointed out in your “Concern at the Core,” you identified some need for some additional training, new training. You identified that a number of senior personnel, sort of the institutional memory. We are all getting older, and it has always about the people. No matter what business you are in, it is always about the people. Really. And making sure that you have good training and good back—background, the farm team that is coming up that has the kind of expertise and the passion to be doing this kind of a thing in collections care. And I am wondering, apparently you have got a lot of senior staff that are going to be retiring here sort of in a group, in a clump here in the next several years. I am just wondering if the IG or the secretary or Dr. Miller have any comment on the—your workforce and how you are preparing for that very critical element of your mission.

Mr. CLOUGH. Well, it has been—it was interesting to me when I came to the Smithsonian to try to understand the larger trends. The budget situation has been challenging, but the people who work at the Smithsonian love it so much, they tend not to want to leave. I noted that certainly one thing that was going up at the Smithsonian was the average age of the employees. That was something that was troubling. And it is not only the institutional memory we stand to lose when one person has been there for 50 years leaves, but in addition, it is bringing in new folks who have new ideas. And, for example, in this digitization area, that might take a younger person, if you will, or person who is more versed in new technologies to do those kind of things. So it is kind of a two-edged sword for us. So we address this second challenge working with donors to try to give us additional funds base for post docs. And we have done a good job. We want to do more. We are trying to raise more funds in that area. We have upwards now of 350 or so post docs who work at the Smithsonian. These are young people who won’t stay with us forever, but in many cases, we find those are the people who come back when there is a job opening. So it is a great chance for them to get to know the Smithsonian and then to hopefully want to come back and work with us. And the interns are a younger group of people, but they can help as well. The institutional memory challenge for us, in part, not entirely, can be ad-

dressed by digital technologies. Because the more we digitize things and the more we put the records and the metadata against the objects in digital format, then we have a way to save that as best we can. We are getting much, much better at collecting oral histories as well, and we are creating platforms for that. So if there are things and special needs in collections, we can save those and document those as well.

But eventually somebody is going to retire. And in any case, we can lose people. We try to stack and stagger things so if there is an older person getting ready to leave, we have got a younger person in the queue who is picking up behind them to continue the work.

The CHAIRMAN. Dr. Miller.

Mr. MILLER. Let me just add to that. Succession planning is a challenge because of the uncertainties of the budget as well as not having a mandatory retirement age and it being hard to plan. But I think our Natural History Museum has done really an excellent job of what the secretary described in succession planning and encouraging bringing in the next generation of people. And I am pleased to say actually that one of the people who was instrumental in that process is now the head of administration at the American History Museum and is leading that kind of a planning process there as part of their strategic plan. And they are specifically looking at collections management activities, among other things. And then one other kind of internal training program that we have recently instituted is called the Palmer Leadership Development Program. It is an endowed program where we take about 20 of our mid-level staff each year and put them through of leadership development course. And a number of those people have been in the collections area.

Mr. CLOUGH. I would just add quickly that Congressman Brady will be proud to know, Russ Palmer is from Philadelphia. He is a great donor to the Smithsonian. He is a big believer in training and investment in people. This cross-training allows someone from collections care, for example, to work in another organization and another part of the Smithsonian and learn how that works and then bring that knowledge back into collections care. We have now had four classes. We are in our fourth class and something I am very excited about. It really will help to institutionally build the expertise across the Smithsonian for our staff.

Mr. DAHL. Chairman Miller, we had a recommendation that was directed toward the American History Museum on your very point on the need to develop a succession plan to address the potential staff turnover with the aging staff, and we are still awaiting a response from management on this. They have issued a questionnaire to the staff at the American History Museum to determine what their retirement plans are. We think with this recommendation, like many of our others, has pan-institutional application, and we would encourage the management to use that recommendation to look at other museums that might have similar problems. But we are awaiting the response to that recommendation.

The CHAIRMAN. Thank you.

I think this is an area where the IG, sometimes you look at the IG recommendations and think, oh gosh, but that really is broad-

ening the scope I think perhaps of IG looking at the succession plan, et cetera. I think that was an excellent point.

My last question would be, and I have to ask this question since I got up reading my Washington Post this morning and saw this article on the front page of the Style Section, "Beyond the Bubble," which really, as you look at this picture in particular, anybody can understand what the impetus was to have the bubble because it really was I think a very visionary thing. But it didn't turn out as well as everybody had hoped initially I guess.

I am just wondering if you could bring us up to speed on what has happened at that particular facility? I know you raised quite a bit of money, and where is the money going?

Mr. CLOUGH. The bubble was an idea from the director at the time, Richard Koshalek, and I think when he described it to us and we thought about it, we thought it was a very clever idea and one that would really add a lot of vitality to that space. He was an expert in the use of public space and had a number of ideas, that being one of those ideas, so that you add vitality to that part of our campus, as we would call it, and also to a building, which tends to be kind of intimidating unto itself and make more people attracted to this public space around the building and use it in a way that you could draw people in, particularly from the diplomatic community and so forth, to have discussions about international issues.

I thought it was quite whimsical. I thought it would add a lot of vitality. I was in fact one of the early supporters of it and made commitments of some of our trust funds in order to help the project. We could not put it on the regular Federal capital list because it was a temporary structure.

It was new and a new concept, because there are a lot of inflatable structures out there. But this one would go up and come down and go up and come down in a year, and it would have to go up and come down twice because it did not have air conditioning or heating in it so you can only use it during the temperate parts of the year.

So as we got further down the line, two things emerged. First, it turns out it had to be donor supported. It turns out that donors really weren't interested in something that was temporary, that might last 8 years or might last 10 years and would only be used for a very small part of the year. So it turned out to be a tougher nut to crack as we would say in terms of fundraising than we thought.

Also, practically, it turned out to be more difficult. This was a unique structure in all the world, so as we brought more expertise against the problem, we began to realize that there were serious practical challenges, because it is not just a matter of blowing the structure up and taking it down because it is a very sophisticated structure, but all the infrastructure you put in it, all those chairs and seats and the IT had to be pulled out each time and then put back each time. So it turned out to have its practical challenges, as much as many of us thought it is an interesting intriguing idea and again one way to increase vitality on the mall.

The museum's board was also initially supportive of it, but the board became more and more, if you will, split over the idea and

eventually did not support the idea. It was unfortunate that we couldn't go forward. I liked the idea that at the Smithsonian, we are trying some new things and trying new ways to engage the public, and my feeling on that is, it is okay if some of them don't work out. I lived in California for quite a while and there was an spirit in California where you try something, if it doesn't work, don't repeat it again, but at least be willing to take a bit of a risk, and I thought this one was worth taking the risk. It just did not work out in its time.

We are doing a master plan for the south campus now with a very creative firm, and they are taking some of the ideas that floated around what the bubble would be for and looking at how we can use the whole campus. So it comes back to the pan-institutional approach again of how do we revitalize that whole area, not just the Hirshhorn, but the new Arts and Industry Building, which we will reopen next year, the Castle, the Freer, Sackler and the African Art Museum, how do we make all that work together for our visitors to enhance their experience.

So we will use some of the ideas that came out of the fermentation for that project, but it just didn't work as a project itself. We did have some donor support for it. I mentioned it was a challenge to raise, but we did have some. The Bloomberg Foundation was a significant donor, and the Annenberg Foundation. We have strong relationships with those foundations. We had informed them that we were meeting challenges and resistance, and I personally visited with them myself and others of my staff did to have discussions with them. And in the end, it didn't work and we are returning the moneys to those foundations.

The CHAIRMAN. Very well. Thank you, gentleman.

The ranking member.

Mr. BRADY. Thank you, Madam Chairman. I just have one question.

How does one go about getting an intern?

Mr. CLOUGH. The intern thing is close to my heart. I am an educator, and I believe that these experiences that we can offer young people are life-expanding experiences and that the Smithsonian is a remarkable opportunity for a young person to learn because we have history, art, culture and science. So we really give them a large breadth, and we are on the Nation's Mall for many of them. Now, not all of them are here. Some may work in Panama. Some may work out at the zoo. Many do work out at the zoo in our conservation biology program.

But we have a program, and it is on our Web site for internships. So you just click on that, and it gives you a detailed process for application. We take interns any time of the year, but most of them come in the summer. We decided to stir our pot differently because in the old days, it was mainly local universities, and now we have expanded it, and we have a new head of our internship program, who is very creative. So we can give you advice if you would like to have any of the folks in Pennsylvania know about it.

Mr. BRADY. I know this is a public hearing, but I am still a little bold. Who do I call to get an intern? I will talk to you after the hearing.

Mr. CLOUGH. We will make sure you get that number.

Mr. BRADY. Because I pride myself with these young men and women and have a lot in my office. The problem with it, and my staff will tell you we have a lot here, is we run out of space, our space isn't that adequate. And I just think it is a great experience for them to be on the committee as an intern and in our own personal office as a intern, and it would be a great experience, and it is a good idea that you do it. And I am glad that they are close to your heart because they are to mine, too, that you can have an intern over at the Smithsonian. It must be a great experience for them. So I appreciate it, and I will talk to you.

Mr. CLOUGH. Thank you.

The CHAIRMAN. Any other questions? The gentleman from California?

I think you can see from all of our questions here what a high regard certainly this committee and Congress and the American People hold the Smithsonian in. As I said and keep saying, it is such a national treasure. I think the testimony was very good, and I think the question and answer period was a great way for you to tell more of your story in a very forthright way. So we appreciate your candidness this morning.

I would also mention for the record that any members that would like to submit additional questions to the witnesses will have 5 legislative days in which to submit those questions as well. There may be some questions that we would ask you and ask you to respond to.

With that, certainly on behalf of this committee, both sides of the aisle, I know that I speak for the ranking member as well, this committee looks forward to continuing to work with you and to do everything we can to ensure that this fantastic treasure does survive and improve for future generations. The largest room is always the room for improvement, no matter what business you are in, right?

So thank you very much. We appreciate the witnesses today. This hearing is adjourned.

[Whereupon, at 11:38 a.m., the committee was adjourned.]

**Committee on House Administration
Hearing on
Collections Stewardship at the Smithsonian
July 17, 2013**

Opening Statement

Mr. Harper:

Much of the activity of the Committee on House Administration focuses on internal workings of the House, election law and disputed elections. One of the great pleasures of serving on this committee, from my perspective, is the opportunity to learn more about institutions such as the National Archives, the Library of Congress - and the Smithsonian, as oversight of all of these falls within our committee jurisdiction. Members of this committee have the special opportunity to gain a behind the scenes or back of the house knowledge of these institutions – as well as to help strengthen and protect them for future generations.

This morning, our focus is on collections stewardship. We exercise this oversight responsibility of the Smithsonian on behalf of the American people. Congressional oversight may often involve criticism, but it also entails listening to your needs and helping you fulfill your institution's mission when we can.

The Smithsonian is the largest museum and research complex in the world, with 19 museums plus the National Zoo and nine research centers. There are **137 million** artifacts, works of art and specimens in the Smithsonian's collections with **136,194 cubic feet** of archival material in the Smithsonian Archives. Proper stewardship of such collections is a tremendous responsibility and no doubt a science unto itself.

I appreciate the work that each of you do in preserving and exhibiting this vast collection. Thank you for being here and I look forward to hearing from each of you this morning.

Rep. Phil Gingrey
Statement for House Admin Hearing – Smithsonian Oversight Hearing
House Administration Committee
July 17, 2013

Madam Chair, I want to thank you for calling this hearing today on oversight of the Smithsonian collections.

I would also like to welcome our three witnesses: Dr. Scott Miller, Deputy Under Secretary for Collections and Interdisciplinary Support, Mr. Scott Dahl, Smithsonian Inspector General, and finally Dr. Wayne Clough, the Secretary of the Smithsonian and a fellow graduate and former president of my alma mater—Georgia Tech.

The Smithsonian Institution is the world's largest museum, with more than 137 million items in its collections, including works of art, specimens, and live animals. Typically, when one thinks of the Smithsonian, images of iconic American artifacts such as Abraham Lincoln's top hat and Dorothy's ruby slippers come to mind. However, the Smithsonian is also a first-class research facility. Preservation of its collections is important not just to the millions of people who visit the exhibits every year, but also for the more than 98 percent of artifacts that are not on display.

Several Inspector General reports and an internal Smithsonian report indicated that collections care was inadequate and that objects of historical and scientific significance were under threat of deteriorating or being destroyed. Audits revealed World War I era American flags deteriorating due to substandard storage conditions and thousands of unsecured military swords hanging off of open shelves. Inventories were found to be lacking, resulting in an inability to determine if

objects had been lost, misplaced, or stolen. Additionally, collections audits detailed insufficient security measures, including the distribution of keys to unauthorized holders and unsupervised access to collection storage. Disturbingly, several of these issues were not limited to one facility, indicating the possibility of a systemic, Institution-wide problem.

Fortunately, efforts to change several of the more pressing and egregious issues have been underway in recent years. The position currently held by Dr. Miller was created to centralize collections care, and management has begun implementation of several of the Inspector General recommendations. However, much work remains to be done in order to preserve the collections for future generations.

I am grateful for the chance to hear from our expert witnesses today on efforts to correct the problems uncovered by the Inspector General and other reports, as well as prevent future issues.

Thank you Madam Chair. I yield back.

CANDICE S. MILLER, MICHIGAN
CHAIRMAN

GREGG HARPER, MISSISSIPPI
PHIL GINGREY, GEORGIA
AARON SCHOCK, ILLINOIS
TODD ROKITA, INDIANA
RICH NUGENT, FLORIDA

KELLY CRAVEN, STAFF DIRECTOR

Congress of the United States
House of Representatives
COMMITTEE ON HOUSE
ADMINISTRATION

1309 Longworth House Office Building
Washington, D.C. 20515-6157
(202) 225-8281
<http://cha.house.gov>

ROBERT A. BRADY, PENNSYLVANIA
RANKING MINORITY MEMBER

ZOE LOFGREN, CALIFORNIA
JUAN VARGAS, CALIFORNIA

ONE HUNDRED THIRTEENTH
CONGRESS

KYLE ANDERSON, MINORITY STAFF
DIRECTOR

August 2, 2013

The Honorable G. Wayne Clough, Ph.D.
Secretary
Smithsonian Institution
1000 Jefferson Drive, SW
Washington, DC 20560

Dear Secretary Clough,

Thank you for testifying during the July 17, 2013 Committee on House Administration Hearing on "Collections Stewardship at the Smithsonian." The Committee requests you respond to additional questions that will be made part of the hearing record. Please provide your responses to the following questions to the Committee **by August 19, 2013**.

1. The 2005 report Concern at the Core concluded there was significant potential for private sector fundraising in the area of collections care despite a "widely-held myth to the contrary." What steps will the Smithsonian take to enhance fundraising efforts in this area?
2. The Smithsonian is in the process of developing a Campus Master Plan. How will this plan address any collections storage or preservation needs?
3. Has the Smithsonian established standards for collections care? How has the Smithsonian ensured that unit directors are held accountable for meeting those standards?
4. It has recently been brought to my attention that the Smithsonian has partnered with Ivymount to implement Project Search – an internship program that provides young adults with intellectual disabilities the work experience they need to get full-time, paying jobs. This is an important issue close to my own heart, which is why we started the Congressional Internship Program for Individuals with Intellectual Disabilities. With the same objective, we launched the program in the fall of 2010 with six House offices and three interns. To date, we've had over 70 offices – House and Senate, Republican and Democrat – that have participated. Knowing the difference these opportunities make to our interns and offices, I am delighted to hear of this partnership. What can you share with us about your involvement and expectations?

5. Assuming Project Search is successful for your organization, would you be receptive to working with our partner, George Mason University's Mason LIFE Program, as well as Project Search, to place developmentally disabled individuals into internships and even permanent employment?

If you have any questions concerning this matter, please feel free to contact Yael Barash on the Committee staff at (202) 225-8281. Thank you again for your testimony, we look forward to hearing from you.

Sincerely Yours,

A handwritten signature in black ink that reads "Candice S. Miller". The signature is written in a cursive, flowing style.

Candice S. Miller
Chairman

Smithsonian Institution
 Questions for the Record
 July 17, 2013
 Hearing on Collections Stewardship
 Questions for Secretary G. Wayne Clough

1. *The 2005 report Concern at the Core concluded there was significant potential for private sector fundraising in the area of collections care despite a "widely-held myth to the contrary." What steps will the Smithsonian take to enhance fundraising efforts in this area?*

The 2005 report, *Concern at the Core*, issued by the Smithsonian's Office of Policy and Analysis (OP&A) was transformative in bringing awareness to Institution-wide collections management issues, and in catalyzing a management and cultural shift about the resources and structure needed to remedy longstanding issues.

OP&A identified that accountability for collections management was previously weak in part because no single entity at the central level oversaw this area. The creation of the position of Deputy Under Secretary for Collections and Interdisciplinary Support and a support team which includes a former member of the OP&A study team have enabled centrally-driven, pan-Institutional priorities that have contributed to significant progress in collections management since the 2005 report.

The report foreshadowed in 2005 that an environment of constrained resources was likely to continue, and urged Smithsonian management to pursue less traditional approaches such as shared collecting and stewardship responsibilities. OP&A also debated a perception within the professional culture that "no one will give money for collections management." To the contrary they stated, "donors will support collections management when an effective case is made."

Smithsonian concurs, and has had some success in fundraising for collections management activities and will continue to pursue creative solutions to a primarily resource-driven concern. But as mentioned in testimony, experience has shown that donors see core collections management as a Federal responsibility. Congress itself has taken this position within the America COMPETES Act of 2010, Section 104, which reinforces the Federal responsibility for caring for the national collections.

Although collections care and management is a Federal responsibility, the Smithsonian has supplemented Federal funding of collections through grants and corporate or private philanthropy. For example:

- o In 2006, the National Museum of American History completed a multi-year conservation treatment of the Star-Spangled Banner with the support of public-private funding. The project (a \$30 million project, including preservation and exhibition) was made possible by private support, including a \$10 million donation from Polo Ralph Lauren and additional gifts from The Pew Charitable Trusts, the John S. and James L. Knight Foundation, and American Express. The conservation project was part of "Save America's Treasures," a federal program which required dollar-for-dollar matching funds. Numerous other conservation and preservation projects at the Smithsonian have been recipients of SAT funding.

- The Archives of American Art has received two multi-million dollar grants from the Terra Foundation to support the digitization of a substantial cross-section of the Archive's most important holdings. These include the papers of a diverse range of artists and arts-related figures, from the 18th century to the present. Since 2005, over one hundred archival collections have been scanned and posted online in their entirety. In addition, more than 12,000 documents have been individually catalogued and are accessible through the Archive's Image Gallery.
 - At the Lunder Conservation Center, visitors have the unique opportunity to see conservators at work in five different laboratories and studios and view all aspects of conversation work, activities that are traditionally done behind-the-scenes at other museums and conservation centers. The Lunder Center is shared by the Smithsonian American Art Museum and the National Portrait Gallery. The Lunder Foundation offered a challenge grant, which was met by private donations, to construct and endow the Center.
 - The Luce Foundation Center for American Art is an open / visible art storage facility displaying more than 3,000 works from the collections of the Smithsonian American Art Museum. The Center occupies three floors of the Museum's west wing. The dense display of painting, sculptures, folk art, and contemporary craft objects tells compelling stories and encourages visitors to make associations between works from different periods and in different media. The Luce Foundation Center was made possible through a gift of the Henry Luce Foundation, including an endowment for its ongoing staffing and operation.
 - The Steven F. Udvar-Hazy Center, named for its major donor who contributed \$65 million for the project, provides visitors an opportunity to visit displays of the most important collections of the National Air and Space Museum, including some 170 aircraft.
 - Numerous Smithsonian museums and collecting units have "adopt an object" programs where online visitors can donate to support the preservation, conservation and digitization of their collections.
2. *The Smithsonian is in the process of developing a Campus Master Plan. How will this plan address any collections storage or preservation needs?*

To clarify, we mentioned two separate, independent space-planning projects during our hearing testimony. In FY 2010, the Smithsonian launched a pan-Institutional collections space planning initiative to document, analyze, and plan for addressing our current and future collections space needs in a pragmatic, strategic and integrated manner. With these goals in mind, the Smithsonian has assessed current collections space conditions and needs, and is currently finalizing a framework plan with near, intermediate, and long-term recommendations for addressing current and projected pan-Institutional collections space requirements. The framework plan will provide an understanding of what our greatest collections space needs are, strategies for addressing them, and prototype designs on which to model future facilities capital projects. Through this collections space planning initiative, we are developing strategies for the decompression of collections to make them more physically accessible, accommodation for future collections

growth, renovation of collections space within existing buildings, and new development of our Suitland and Dulles campuses. The plan creates a clear yet flexible roadmap to inform Smithsonian management decisions and guide our budget requests and resource allocations for addressing the Smithsonian's near and long-term collections space requirements.

More recently, we initiated a Master Planning project for the South Mall Campus. The focus of the South Mall Campus Master Plan is the future development of visitor services, programs, buildings and outdoor areas between 7th and 12th Streets, SW, and between Independence Avenue and Jefferson Drive. Although this area includes the Smithsonian Castle, the Freer and Sackler Galleries, the National Museum of African Art, and the Hirshhorn Museum and Sculpture Garden, we do not anticipate any significant impact on their collections. As the plan is implemented over the next five to fifteen years, it is likely that some collections may need to be temporarily relocated to accommodate required building construction and renovation.

The future use of the Arts and Industries Building is not currently within the scope of the South Mall Campus Master Plan, but if it becomes a new museum it is very likely that new collections will be acquired and will need to be preserved, stored, and exhibited.

3. *Has the Smithsonian established standards for collections care? How does the Smithsonian ensure that unit directors are held accountable for meeting those standards?*

The Smithsonian establishes pan-Institutional collections management policies and guidance through Smithsonian Directive 600, Collections Management regarding the development, acquisition, preservation, documentation, use and disposition of Smithsonian collections. In accordance with SD 600, each Smithsonian collecting unit is required to develop, implement and adhere to written collections management policies, procedures, and standards tailored to the specific nature, scope, and purpose of its collections. Unit collections management policies are reviewed and approved by senior Smithsonian management. Together, these policies ensure that our collections are maintained according to Smithsonian policy, discipline-specific standards, and legal obligations.

Collecting unit directors are responsible for unit policy guidance, program direction and planning, and budget support to carry out the collections management requirements of SD 600 and for unit compliance with Smithsonian and unit collections management policy requirements. The Under and Deputy Under Secretaries ensure that Smithsonian collections are managed in compliance with Smithsonian collections management policies through oversight of collecting unit directors.

4. *It has recently been brought to my attention that the Smithsonian has partnered with Ivymount to implement Project Search - an internship program that provides young adults with intellectual disabilities the work experience they need to get full-time, paying jobs. This is an important issue close to my own heart, which is why we started the Congressional Internship Program for Individuals with Intellectual Disabilities. With the same objective, we launched the program in the fall of 2010 with six House offices and three interns. To date, we've had over 70 offices - House and Senate, Republican and Democrat - that have participated. Knowing the difference these opportunities make to our interns and offices, I am delighted to hear of this partnership. What can you share with us about your involvement and expectations?*

We are very excited that our first class of eleven interns will arrive on September 3 to begin their 10-month internship at the Smithsonian. Over a year ago, we began to explore ways to increase

the hiring of persons with disability at the Smithsonian, and our inquiries led to Project SEARCH, a proven business-driven model with over 200 programs currently in 40 states and four countries.

The Smithsonian is most fortunate to be able to model its Project SEARCH program on the very successful program at the National Institutes of Health (NIH), now in its fourth year. Like NIH, the Smithsonian is partnering with The Ivymount School, which will supply an on-site educator to provide daily instruction, and with another service provider that will supply job coaches and worksite development. With these experienced external partners and with guidance and assistance from the NIH staff, we are confident that we have a strong foundation on which to base our own implementation of Project SEARCH. Our planning team also received on-site training from one of the original founders of the Project SEARCH program in Cincinnati, Ohio.

We are also fortunate in the commitment of Smithsonian senior management. Our three Under Secretaries, together with the Assistant Secretary for Education and Access, have been engaged since November 2012 when Project SEARCH at the Smithsonian was first formally proposed. Under Secretaries and other senior managers participated in our official kick-off in February 2013 and have been supportive in providing staff time for the planning and implementation of the program. Managers have also supported the creation of worksites in various Smithsonian locations.

Our expectations are high. We are hopeful that many of our interns will complete the 10-month program “employment ready” and that we will be able to transition them into our work force. We recognize that this may be a tall order in FY 2014, when there are numerous fiscal challenges, but we are committed to achieving the overarching goal of Project SEARCH: transitioning young adults with disabilities into the workplace. We welcome your interest and would be happy to provide additional information and updates as the first year of our program progresses.

5. *Assuming Project Search is successful for your organization, would you be receptive to working with our partner, George Mason University's Mason LIFE Program, as well as Project Search, to place developmentally disabled individuals into internships and even permanent employment?*

The Smithsonian Institution is presently working with the George Mason LIFE Program. The National Museum of Natural History (NMNH) hosted two interns and their GMU student job assistants in summer 2012. An additional LIFE student began his internship in fall 2012 and will complete it in December 2013. The internships are through NMNH's Education and Outreach Office whose staff is eager to continue their on-going relationship with the George Mason LIFE Program.

The Smithsonian currently has four programs that welcome young people with cognitive and other disabilities into the Institution as interns. In addition to Project SEARCH and the George Mason LIFE Program, students may obtain an internship through the ALL ACCESS Digital Arts Program Camp and the Access to Opportunities Internship Program:

ALL ACCESS Digital Arts Program Camp is an opportunity for up to 20 high school students with cognitive disabilities in the Washington, D.C.-area to participate in a two-week multi-media

camp at the Smithsonian Institution. Students explore areas of interest at different Smithsonian museums in a way that is tailored to meet their individual needs while documenting their experiences using digital recording devices. Students then compile their digital media, create a digital movie, and share their digital work using social media with their camp peers and friends. The camp culminates with a student movie premiere. The camp is free to students and made possible by the generosity of a Smithsonian Youth Access Grant. Camp alumni have the opportunity to participate in monthly Club activities to further develop their digital media skills and sustain friendships. One camp alumnus is selected each summer to intern with the camp administrators.

The Smithsonian, in partnership with The HSC Foundation, manages the Access to Opportunities Internship Program specifically designed for people with disabilities. Access to Opportunities is a competitive stipend award program, primarily for college students. The program seeks to empower participants' sense of independence and enhance their quality of life as they look towards their futures with optimism. Exposure to the real world of work, research, and academics within a supportive and engaging environment provides interns with the ability and confidence to transfer the skills they developed in the classroom to the world of work. The number of student participants varies yearly.

CANDICE S. MILLER, MICHIGAN
CHAIRMAN

GREGG HARPER, MISSISSIPPI
PHIL GINGREY, GEORGIA
AARON SCHOCK, ILLINOIS
TODD ROKITA, INDIANA
RICH NUGENT, FLORIDA

KELLY CRAVEN, STAFF DIRECTOR

Congress of the United States
House of Representatives
COMMITTEE ON HOUSE
ADMINISTRATION

1309 Longworth House Office Building
Washington, D.C. 20515-6157
(202) 225-8281
<http://cha.house.gov>

ROBERT A. BRADY, PENNSYLVANIA
RANKING MINORITY MEMBER

ZOE LOFGREN, CALIFORNIA
JUAN VARGAS, CALIFORNIA

ONE HUNDRED THIRTEENTH
CONGRESS

KYLE ANDERSON, MINORITY STAFF
DIRECTOR

August 2, 2013

Dr. Scott Miller, Ph.D.
Deputy Under Secretary for Collections and Interdisciplinary Support
Smithsonian Institution
1000 Jefferson Drive, SW
Washington, DC 20560

Dear Dr. Miller,

Thank you for testifying during the July 17, 2013 Committee on House Administration Hearing on "Collections Stewardship at the Smithsonian." The Committee requests you respond to additional questions that will be made part of the hearing record. Please provide your responses to the following questions to the Committee **by August 19, 2013**.

1. Has the collections assessment identified any priority collections at imminent risk due to lack of adequate care or storage facilities? Do you have short-term plans to address these immediate problems?
2. Can the pace of digitizing the collections keep up with the pace of accessioning? With the pace of technological change in the digitization field?
3. How do management's three priorities regarding collections care compare to the IG's major recommendations?
4. What is the annual funding amount for collections support for each of the years 2003-2013? Please indicate the amount of federal and trust funding each year.
5. The Inspector General's testimony notes that collecting units "are free to set their own standards and allocate resources" for collections management. What impact does this decentralized approach have on your ability to successfully address collections stewardship at the Institution? Do you have sufficient tools to effectively manage a pan-Institutional program to improve collections stewardship?
6. Have you pursued any less traditional approaches to collections care such as sharing stewardship responsibilities with other organizations? Are there risks with this type of partnership?

7. Does the Smithsonian look to other museums and institutions to identify existing collections and specialties to avoid duplication among collections?

If you have any questions concerning this matter, please feel free to contact Yael Barash on the Committee staff at (202) 225-8281. Thank you again for your testimony, we look forward to hearing from you.

Sincerely Yours,

A handwritten signature in black ink that reads "Candice S. Miller". The signature is written in a cursive, flowing style with a large initial "C".

Candice S. Miller
Chairman

Smithsonian Institution
Questions for the Record
July 17, 2013
Hearing on Collections Stewardship
Questions for Deputy Under Secretary Scott Miller

1. *Has the collections assessment identified any priority collections at imminent risk due to lack of adequate care or storage facilities? Do you have short-term plans to address these immediate problems?*

The Smithsonian is engaged in two efforts to identify areas of risk – the collections space planning initiative and the conditions assessment. Both efforts have enabled the Smithsonian to identify areas of risk, and to establish priorities and action plans for systematically improving the preservation and accessibility of collections.

The collections space survey provided a snapshot of current collections space conditions and characterizes the quality of collections space, storage equipment, accessibility, environmental conditions, security, and fire safety.

Preliminary data from that collections space survey highlighted that some collections were at risk of damage or loss at the Garber Facility in Suitland, Maryland where buildings constructed in the 1950s and 1960s have surpassed their useful lifespan. As a result, a fiscal year 2012 Facilities Capital project currently underway begins to address the severe collections space deficiencies in Buildings 15, 16, and 18 at the Garber Facility, supporting the decontamination, stabilization and move of American History and Postal Museum collections currently stored in the buildings to a soon-to-be constructed temporary swing space. Completion of this remediation project and the continued move of Air and Space Museum collections to the Udvar-Hazy Center are the first steps in a phased redevelopment plan for the Garber Facility.

Assessments help to identify risks at the facility level, but also within individual storage spaces. Collections are also evaluated on a more fine scale as part of the conditions assessment. The collections physical condition assessment includes an evaluation of the quality of collections storage equipment, object housing materials, preservation, physical accessibility, and collections space.

Although collections by their nature and use are subject to deterioration, some collections are more susceptible to further deterioration, damage, or possible loss due to their fragility, current state of preservation, or storage condition. The assessment process determines and documents the physical condition and any possible variance in that state from year-to-year.

The Smithsonian uses the centralized Collections Care and Preservation Fund to address priority collection needs and to achieve targeted improvements in preservation and accessibility of collections in an efficient and cost-effective manner. Using that funding model, the Smithsonian will continue to target specific collections and to improve substandard aspects of collections care, preservation, and storage to an acceptable level based on the assessment results and unit collections management priorities.

2. *Can the pace of digitizing the collections keep up with the pace of accessioning?*

Collections accessioning follows standard guidelines. The guidelines require detailed documentation of all new acquisitions. Modern accessioning creates digital inventory records in a collecting unit's electronic collections information system.

Digitization, however, most commonly refers to the creation of high-quality images of the collection for public access. Digitization can occur for new or existing collections, but imaging will not occur for all collections. Priorities of the digitization program include compelling research interest, education, and preservation.

Overall, 12 million Smithsonian objects and specimens (or 9% of our collection) have been targeted for imaging. Currently, we have standard digital images that represent 12% of this priority collection and our current progress is almost 3% annually. Some objects get imaged as soon as they are accessioned, but others are more efficiently imaged later as groups with other material (allowing "industrial scale" work flows), some get only representative images of groups of similar objects (many biological specimens), and others are low priority for imaging (such as marine worms acquired for research). Thus a direct comparison between accession statistics and imaging statistics is not meaningful.

As Deputy Under Secretary Scott Miller pointed out in his hearing testimony, the Smithsonian is actively investigating technologies to scale up digitization for both new accessions and existing collections, and ways to fund these efforts. The Smithsonian is working with the industry and the museum community to define digitization standards, and to drive technological improvements.

In FY 2012, Smithsonian collecting units reported a net gain of 335,000 digital images, which highlights that we are making progress, even in the face of evolving technologies, standards and expectations.

The Smithsonian is deeply committed to the long-term stewardship of physical collection items, and also applies this commitment to the stewardship of digitized collections. We capture our digital images according to the highest standards of the professional museum community, safely storing and making them accessible through our pan-Institutional digital asset management system. This ensures that a digital image created today can be put to many effective uses that may later emerge as technology advances.

However, the march of technology is relentless, and some of the assets created today may not meet our audience's expectations, or our own evolving professional standards, in the future. Digitization of Smithsonian collections, just like collections care, is not a one-time project, but an ongoing programmatic activity. We take advantage of tried-and-true technology to assure the longevity of our digital collection assets, and stay abreast of the latest developments, such as our 3D digitization efforts mentioned by Secretary Wayne Clough during the hearing, to assure that our digitization activities parallel evolving technologies.

3. *How do management's three priorities regarding collections care compare to the IG's major recommendations?*

The Smithsonian has focused on three initiatives for a holistic view of collections.

- Assessment of collections physical conditions,

- Strategic focus on the digital Smithsonian, and
- Collections space planning.

These three initiatives encompass the concerns noted in the IG's reports. Specifically:

- Inventory control,
- Security standards, and
- Preservation.

In all cases, the three holistic initiatives extend well beyond the Inspector General's concerns. For example, the collections space conditions initiative not only examines **security standards** but also characterizes the quality of collections space, storage equipment, accessibility, environmental conditions, and fire safety. The collections conditions assessment is conducted in parallel with a digitization assessment—together these assessments measure not only **inventory control and preservation**, but also the quality of collections storage equipment, objects housing materials, and physical accessibility. The assessment also identifies priorities and targets for collections care and digitization.

For the first time in the Institution's history, these rich datasets combine condition and significance of the collections themselves, with their stewardship context and user accessibility. The Collections Condition Assessment and Collections Space Survey and Planning bring into to focus the current state of collections stewardship and quality of existing collections space, and how to prioritize improvements in both quality and efficiency of collections care and space in the future. When combined with the Digitization Assessment and Planning, this information helps to establish an organizational strategy to ensure improved preservation and accessibility of our physical and digital collections assets.

4. *What is the annual funding amount for collections support for each of the years 2003-2013? Please indicate the amount of federal and trust funding each year.*

The following information is provided from FY 2006-2013, as the Institution's accounting structure and methodology for tracking collections stewardship was changed in FY 2006. Smithsonian's cumulative investment (Federal and Trust) in collections from fiscal year 2006-2013 includes \$594.2 million for collections management and \$390.1 million in major Facilities Capital Projects directly impacting collections care.

Of course, there are significant limitations in these figures. Coding costs as "collections" misses complementary or supporting activities such as maintenance, security, and information technology, which have direct impact upon the collections. In addition, many complementary expenditures, recorded as research or exhibits, support collections management or digitization.

Collections Funding Information

Investment in Collections FY 2006 – 2013 (\$000)		
Fiscal Year	Federal	Trust
2006	57,135	15,397
2007	56,051	19,950
2008	58,457	15,822
2009	60,696	15,988
2010	56,491	13,699
2011	58,658	15,594
2012	57,819	17,754
2013 estimate	56,965	17,754
Cumulative Total	\$462,272	\$131,959
Cumulative Combined Total	\$594,231	
At a minimum, collections stewardship is 9% of total Federal appropriation		

Major Facilities Capital Projects Impacting Collections Care FY 2006 - 2013		
Year of Completion / Current Progress	Total Project Cost	
	Federal	Trust
2007		
• Garber Building 25	1,900	
• MSC Pod 5	42,200	
• Capital Gallery (partial collections space)	20,000	6,000
• NZP Infrastructure / Asia Trail I and II	81,000	19,000
2008		
• Pennsy Drive Collections and Support Center	6,000	44,000
2010		
• MSC Pod 3	38,000	
2011		
• NASM Hazy II		64,600
• CHNDM, Crozier Facility, Newark	6,000	
2012		
• NMAH Humidity Control	1,500	
• NMNH West Wing Ground	6,000	
2013		
• NZP American Trail	42,000	900
• Garber Swing Space, Building 37	3,000	
• NMNH West Wing, 2 nd Floor	8,000	
Cumulative Total	\$255,600	\$134,500
Cumulative Combined Total	\$390,100	

5. *The Inspector General's testimony notes that collecting units "are free to set their own standards and allocate resources" for collections management. What impact does this decentralized approach have on your ability to successfully address collections stewardship at the Institution? Do you have sufficient tools to effectively manage a pan-Institutional program to improve collections stewardship?*

The units are not "free to set their own standards." Such standards are set within the context of Smithsonian Directives (SD), for example SD 600, our institutional policy on collections. Fundamentally we are one Institution, but the management of Smithsonian collections and other Smithsonian activities such as research, exhibition, and education, has been traditionally decentralized and delegated to our individual museums, art galleries, and collecting units in accordance with Smithsonian policy with oversight from senior Smithsonian management. This flexibility is essential. The Smithsonian is world's largest museum and research complex, consisting of 19 museums and galleries, the National Zoological Park, and nine research facilities—discipline-specific standards vary widely from one Smithsonian museum to the next. Management and advisory committees help facilitate the balance between flexibility for diverse museums and adherence to Smithsonian-wide policy. For example, the Smithsonian Collections Advisory Committee was created in 2005, and the Collections Care and Preservation Fund in FY 2006 have helped to drive significant improvements in collections management.

The creation of a new position in 2010, the Deputy Under Secretary for Collections and Interdisciplinary Support, has raised the profile of collections stewardship within the Smithsonian, including the important work of central offices such as the National Collections Program and the Digitization Program Office. This office has helped catalyze a cross-disciplinary approach to collections-related challenges and opportunities. Engaging in holistic collections-level management has capitalized on economies of scale and enabled comprehensive care improvements that benefit the greatest number of items in an efficient, practical, and cost-effective manner.

Centralized collections care funding has helped facilitate recent progress in collections management. The Smithsonian's capital planning and budget planning processes increasingly focus on pan-Institutional collections priorities. These pan-Institutional initiatives provide critical tools, direction, and planning for improving the management, care, and accessibility of collections, but to successfully support Smithsonian collections stewardship we must sufficiently resource their implementation.

6. *Have you pursued any less traditional approaches to collections care such as sharing stewardship responsibilities with other organizations? Are there risks with this type of partnership?*

The Smithsonian has numerous partnerships with other Federal agencies regarding the management of collections. For example, the National Museum of Natural History hosts personnel from four Federal agencies—U.S. Department of Agriculture, Department of Defense, Department of Interior, and U.S. Geological Survey—which spend roughly \$6 million annually to base approximately 100 staff in NMNH's collections to fulfill their agency missions and share in the development and curation of the Museum's collections. We also have ongoing collaborations

with a number of local and national universities regarding Smithsonian collections, including off-site enhancement programs where Smithsonian collections are maintained and curated at other repositories. In addition, the Smithsonian has a network of affiliate museums and educational organizations that maintain and exhibit collections on long-term loan. Ensuring proper stewardship of Smithsonian collections is always the underlying principle of any partnership involving museum collections. Objects on long-term loan also run the risk of being returned prior to the fulfillment or extension of the loan agreement, possibly necessitating unexpected storage space and additional staff requirements.

7. *Does the Smithsonian look to other museums and institutions to identify existing collections and specialties to avoid duplication among collections?*

The Smithsonian requires responsible, disciplined acquisition of collections based on stringent acquisition evaluation criteria. In order to provide responsible management of the collections, potential acquisitions undergo a rigorous selection and review process. Potential acquisitions are reviewed for consistency and relevancy with the collecting unit's mission, programmatic goals, and collections plan; object quality, physical condition, intellectual value and significance; documentation of legal title and provenance; ability and costs to provide appropriate management, care and use; and potential for use in exhibition, education, and research. Because of this rigorous selection process, the Smithsonian acquires only a small percentage of what is offered to the Institution.

As part of professional collections planning and acquisition selection, the Smithsonian—like most museums—acknowledges areas of specialties and collection strengths within specific professional communities and disciplines. Smithsonian collecting units place their collections in the context of other similar or complementary collections, regionally, nationally, or internationally. In some disciplines, redundancy or duplication is standard because of the nature, purpose and intended use of the collections.

The Smithsonian recognizes the need for cooperation and consultation between museums with similar or overlapping interests and collecting areas, and often consults with other institutions both on specific acquisitions and, more generally, on defining areas of collecting specialization and developing a cooperative approach to planning and sharing collections.

In some cases, the Smithsonian has chosen not to collect in particular subjects because other collections serve the national needs in that discipline. For example, the national collection of fungus is maintained by the U.S. Department of Agriculture (USDA) in Beltsville, Maryland, and therefore the Smithsonian National Museum of Natural History does not collect fungus (other than lichens, which USDA does not cover), but collaborates as needed with the USDA experts and collections.

CANDICE S. MILLER, MICHIGAN
CHAIRMAN

GREGG HARPER, MISSISSIPPI
PHIL GINGREY, GEORGIA
AARON SCHOCK, ILLINOIS
TODD ROKITA, INDIANA
RICH NUGENT, FLORIDA

KELLY CRAVEN, STAFF DIRECTOR

Congress of the United States
House of Representatives
COMMITTEE ON HOUSE
ADMINISTRATION

1309 Longworth House Office Building
Washington, D.C. 20515-6157
(202) 225-8281
<http://cha.house.gov>

ROBERT A. BRADY, PENNSYLVANIA
RANKING MINORITY MEMBER

ZOE LOFGREN, CALIFORNIA
JUAN VARGAS, CALIFORNIA

ONE HUNDRED THIRTEENTH
CONGRESS

KYLE ANDERSON, MINORITY STAFF
DIRECTOR

August 2, 2013

Mr. Scott S. Dahl
Inspector General
Smithsonian Institution
MRC 524 PO Box 37012
Washington, DC 20013

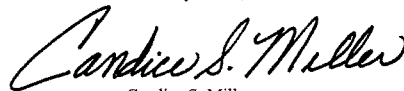
Dear Mr. Dahl,

Thank you for testifying during the July 17, 2013 Committee on House Administration Hearing on "Collections Stewardship at the Smithsonian." The Committee requests you respond to additional questions that will be made part of the hearing record. Please provide your responses to the following questions to the Committee by **August 19, 2013**.

1. Collections stewardship involves multiple elements including development, preservation, and access (including digitization.) In your assessment, should the Smithsonian place priority emphasis on any component?
2. How would you characterize management's response to your audit recommendations?
3. What is your process for evaluating management's actions on your audit recommendations?

If you have any questions concerning this matter, please feel free to contact Yael Barash on the Committee staff at (202) 225-8281. Thank you again for your testimony, we look forward to hearing from you.

Sincerely Yours,



Candice S. Miller
Chairman



Smithsonian Institution

Office of the Inspector General

August 16, 2013

The Honorable Candice S. Miller
Chairman
Committee on House Administration
1309 Longworth House Office Building
Washington, DC 20515-6157

Dear Chairman Miller:

Thank you for your letter of August 2, 2013, containing additional questions for the record relating to the July 17, 2013 hearing on "Collections Stewardship at the Smithsonian." I am pleased to submit the enclosed responses.

Please do not hesitate to contact me at (202) 633-7050 if you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "S. Dahl".

Scott S. Dahl
Inspector General

cc: The Honorable Robert Brady, Ranking Member
Enclosure

MRC 524
PO Box 37012
Washington DC 20013-7012
202.633.7050 Telephone
202.633.7079 Fax

**Smithsonian Office of the Inspector General
Responses to Questions for the Record Relating to
July 17, 2013 Hearing on Collections Stewardship at the Smithsonian**

1. Collections stewardship involves multiple elements including development, preservation, and access (including digitization). In your assessment, should the Smithsonian place priority emphasis on any component?

Collections stewardship at the Smithsonian is a growing challenge with many different facets. Based on our audit work, we identified the following three components as systemic collections care challenges that must be emphasized and addressed on a pan-institutional level: preservation practices, inventory control, and security of collections. These three components are intertwined and of comparable importance.

Other elements, including development and access, indirectly support collections stewardship. Development activities can help to fund some collections care, although the Smithsonian relies primarily on appropriated funds in this area. One way to allow greater access to the collections is through digitization. Digitization also reduces the need for handling the collections and provides opportunities for inventorying items. Therefore, Smithsonian's digitization program will address issues related to the three components that we have identified, but this approach alone will not address all of the ongoing collections stewardship problems, such as space storage needs and deteriorating buildings.

2. How would you characterize management's response to your audit recommendations?

In general, management has been responsive to our recommendations. Many of our recommendations called for management to provide us with plans to address collections care issues, and we have received and reviewed most of these plans. While plans are a necessary and important first step, they need to be implemented to have any effect on collections care. In many instances, the implementation of the plans is contingent on additional funding levels. Management must identify future funding or develop contingency plans for collections care that are not dependent on increased appropriations.

Another impediment is the Smithsonian's decentralized approach to collections care. For the most part, collecting units are free to set their own standards and allocate resources for collections care as they see fit.

We will continue to monitor management's implementation of our previous audit recommendations. Additionally, we have recently initiated a review to evaluate the impact of Smithsonian's pan-institutional collections care

initiatives and to examine the future funding and contingency plans for collections care.

3. What is your process for evaluating management's actions on your audit recommendations?

Our process for determining if management's actions meet the intent of the recommendation is as follows:

- We monitor and track management's progress in responding to our recommendations.
- Generally, by the due date that management sets for responding to the recommendation, we receive either a request to close the recommendation or sometimes a request to extend the date.
- We request and review documentation supporting management's response to the recommendation.
- On occasion, as necessary, we interview key personnel to gain additional information on management's approach to resolve the recommendation.
- Also, when appropriate, we perform tests to verify that the represented work has been completed.